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MARCH 1994

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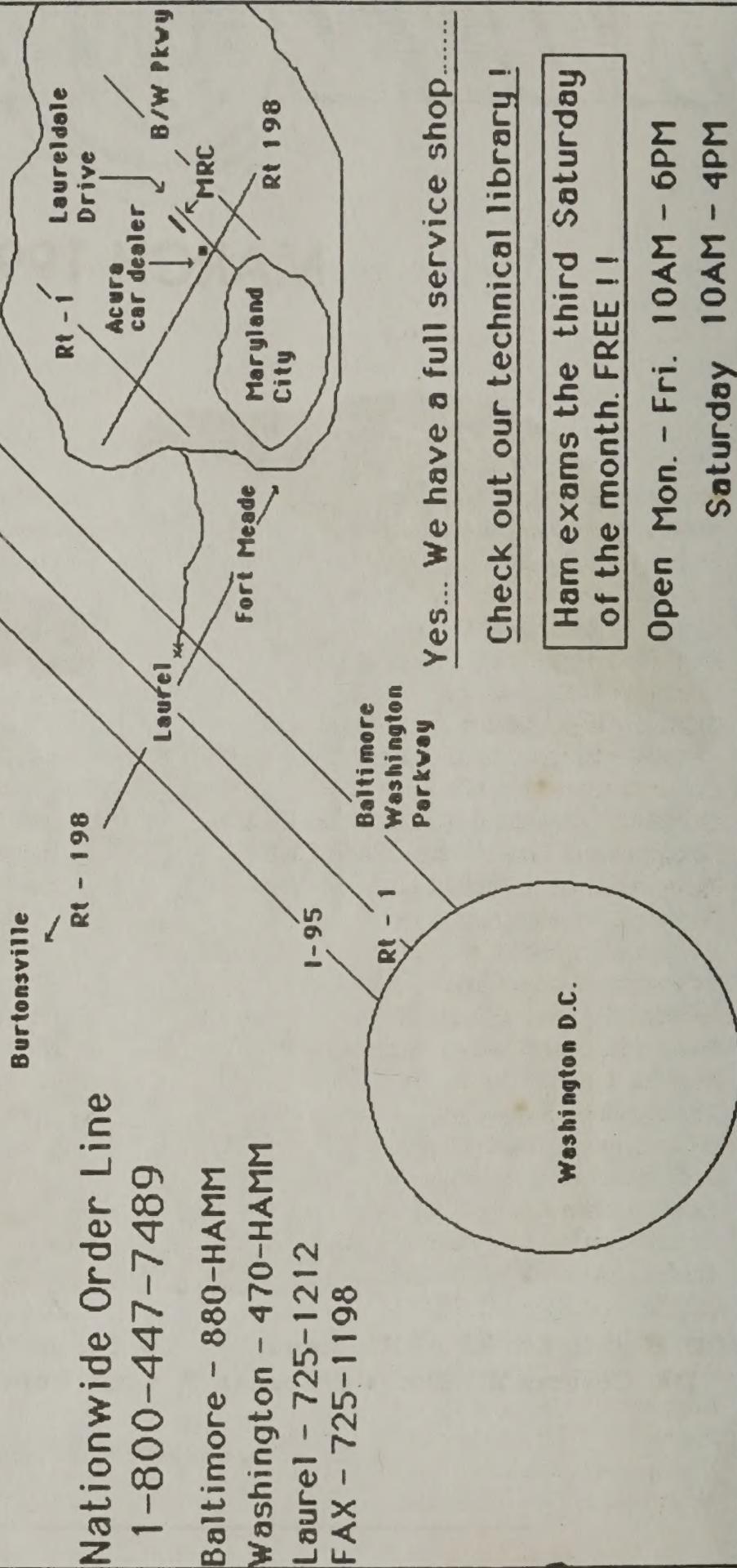


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The Foundation For Amateur Radio, Inc.



Washington, DC

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Official Journal of the Foundation for Amateur Radio

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Columns

Coming Events	5
Presidents Corner	6
FCC Highlights	7
ARRL Report	11
DX DX DX	15
Elmer's Corner	17
PIO MD/DC	18
Skywarn	20
Traffic Fun	22
Training	27
VEC Co-op	28

Club Columns

Anne Arundel Radio Club	32
IBM	33
National Capitol DX Assn.	34
Northern VA FM Assoc.	36
Southern Patuxent ARC	37
Fauquier Amateur Radio Club	38
Vienna Wireless Society	39
Carroll County ARC	39
Herndon Repeater Group	40
MADRAS	41
Goddard Amateur Radio Club	42
Mt. Vernon Amateur Radio Club	43
AMRAD	44
Arlington Amateur Radio Club	44
Columbia Amateur Radio Assn.	45
Maryland Mobileers ARC	46
Southern Maryland ARC	47
Alexandria Radio Club	48
Shenandoah Valley ARC	49
Green Mountain Repeater Assn.	49
Prince George's Wireless Soc.	50

Advertisers

Maryland Radio Center	2
Electronic Equipment Bank	26
Packet Gadgets	33
2 Land Communications	34
Rayma Electronics	35
ScanWare	36
Capitol City Internet	37
Electronic One-Stop	42
R.F. Connection	51
Mugs & Stitches	51
G & G Electronics	52
Ham Radio Outlet	55

COMING EVENTS

Mar 5	Shore Points ARC, Abscon, NJ
Mar 12-13	Mecklenburg ARC, Charlotte, NC
Mar 13	York Springfest, York, PA
Mar 20	Two Rivers ARC, Monroeville, PA
Mar 26-27	Greater Baltimore Hamboree, Timonium, MD
Apr 3*	Chesapeake ARS, Virginia Beach, VA
Apr 4	Palm Sunday
Apr 10	Penn-Del ARC, New Castle, DE
Apr 11	Easter Sunday
Apr 29-May 1	Dayton Hamvention, Dayton, OH
May 7	Kent Island Hamfest, Grasonville, MD
May 8*	Roanoke Valley Hamfest, Venton (Roanoke), VA
May 8-9*	Greenville, NC Hamfest
May 9	Mother's Day
May 15	Warminster ARC, Wrightstown, PA
May 20-22	Atlantic Div./N.Y. State Convention, Rochester, NY
May 21	Armed Forces Day
May 21-23	Rochester Hamfest - Rochester, NY
May 22	Antietam RA Hamfest, Hagerstown, MD
May 29	Maryland FM Assoc. Hamfest, Howard Co. Fairgrounds, Howard Co., MD
June 5*	Ole Virginia Hams Hamfest, Manassas, VA
June 5*	Breeze Shooters ARC Hamfest, Butler, PA
June 5	Tamaqua Transmitting Society, Tamaqua, PA
June 10-12	ARRL National Convention, Arlington, TX
June 12	Hanover Area Hamming Assoc., Hanover, PA
June 19	Frederick Hamfest, Frederick, MD
June 25-26*	Field Day '94

Conventions and Conferences

Mar 6	Central Atlantic ATV Network Conference - North East, MD
Mar 26-27	ARRL Maryland State Convention - Timonium, MD
May 20-22	ARRL Atlantic Division Convention - Rochester, NY
June 10-12	ARRL NATIONAL CONVENTION - Arlington, TX
July 10	Central Atlantic ATV Network Conference - North East, MD
July TBA	Traffic Handlers Picnic - Contact W2MTA
Sept 24	Central Atlantic ATV Network Conference - Dover, PA

* Denotes Not Confirmed

Thanks to Hugh Turnbull - W3ABC and Bob Milligan - KI4MB for providing much of the above information. Please send a copy of your Hamfest Flyer and Information to Auto-Call and keep us advised of any changes. We are anxious to provide our readers with timely information and help to avoid possible conflicts when scheduling activities.

MOSTLY GOOD PERSONS

New classes are beginning for those aspiring to enter the world of amateur radio. Stores are even running out of novice study guides!

As I speak to people who are registering for classes, the diversity of age, background and interests is amazing. Some are just curious, and will be the drop-outs that occur in every class, (and make us wonder what we did wrong). Some will struggle through the class but fail testing. We get many return students in our novice classes. Most of them pass testing on the second try. When we ask them why they didn't just study on their own, they say they enjoy sharing the comradery of the class and the background "strength" that comes with listening to the experiences of both staff and fellow students.

There is no question that a good beginning in any learning experience builds character and quality in both amateurs and professionals. That's why instructors have an obligation beyond the technical. I had the unfortunate experience of attending an upgrade class which was very disappointing because the instructor was a brilliant ham and a terrible teacher. Fortunately those instances are rare.

Those of you who are amateur radio instructors know that satisfaction is the only "reimbursement" for the many hours and consecutive weeks devoted to this "labor of love". It is enough, by itself, to bring you back to the classroom year after year. Maryland just lost such an instructor in Walt Ramsey (AK3B). After only 15 extremely active years in all aspects of club activity, Walt leaves a long list of friends and ex-students, and will be missed.

I write this editorial anticipating about 50 new students who will begin a novice/tech class tomorrow morning, (Feb 5) a staff of at least seven will greet them. Among the staff will be graduates of prior club classes. I have no doubt that those who complete the "class of '94" will add to the hobby another group of respected amateurs.

CQ magazine recently released a video introducing our hobby. One of the speakers in the presentation is an experienced New Jersey police detective who said that he had never had to arrest an amateur radio operator. While we all know that we have some "challenging" hams in the hobby, we can take pride in instructors and other club leaders who "set the tone".

See you at the SPRING BANQUET!

Tony WA3YLO

The Foundation For Amateur Radio, Inc.



Washington, DC

FCC HIGHLIGHTS

By Jack Kelleher, W4ZC

NEW FCC FORM 610

Beginning March 1, 1994 the FCC will accept only the new version of its Form 610 (the one dated November 1993) as explained in February QST. Use of the new form applies to everyone, from new licensees to renewals, call sign changes, etc.

VANITY CALL SIGNS

As of February 4th ARRL has requested an extension of the deadline for comments in this proceeding (PR Docket 97-305) from March 7 to April 21. It is anticipated that the Commission will grant the League's request.

REGRETS AND REPENTANCE

We regret that there doesn't seem to be much FCC news this month. This being so, we use this space for an abbreviated version of an article which appeared in QST in January 1947, and which is being used with the permission of ARRL. The article is titled "The Repenter, for people who think they think", by Burt L. Zimet, W2JUX.

General

The Repenter is a lightweight, compact unit (see Fig. 1) and is intended for use by people whose capacities for repentance are below normal, or by those who have more to be sorry about than can be conveniently handled without artificial aid. By use of this device the operator may have his bad moments repented for him, thus permitting him to engage in activities which he may later repent at leisure. The Repenter is guaranteed (except in March) faithfully to repent in exact accordance with the desires of even the most talented of bunglers.

The Repenter produces tone-modulated sighs in the frequency range 10.3 to 70.1 pangs per second (pps), and the modulation frequency is one thousand sobs per second (sps). The device may be adjusted to produce racking pangs of remorse when such extremes are indicated. A simple adjustment of the Remorse potentiometer will create an atmosphere of complete dejection and thus enable the operator to quickly repent hasty words or purchases. Complete and absolute penitence is accomplished at 60 pps. However, the operator is cautioned that this adjustment must be made with extreme care (kid gloves if available, if not, use spats), since the Repenter will be operating in the Black Despair end of its Gripe-current Plight-voltage curve. (NOTE: A Gray Gloom may be obtained from the output jacks when the Grief control is turned to the extreme counterclockwise position. Should this control be in the Off position, only a lingering doubt will be present). When gloomy, the operator should turn the dial labeled KICK ME to the On position, and immediate relief will be realized.

Continued on next page

It is, of course, reasonable to assume that in accordance with Moe's Law (Hey, Moe, watta ya know?) the Repenter can be made to rue. To rue the day, adjust the device in accordance with the simple nine hundred page instruction manual furnished with each Repenter.

When the urge to say "You'll be sorry" comes upon the operator, the Azuzza-type Expectation Preselector should be attached to the Repenter. Combining these two devicees will produce in the Repenter a negative Drift current which biases the Volstead Valve excessively. The net effect on the operator is essentially a surge of linear expectation which causes a hasty revisit to every surplus store within a hundred-mile radius to purchase everything in sight, including such useful items as air brakes for rotary-beam antennas.

Characteristics

The Repenter differs from most conventional ham gear in that it satisfactorily matches a wide range of emotional impedances. These impedance values depend in large measure, of course, upon the temperament coefficient of the operator. When this factor is essentially flat the instrument may be relied upon to adequately supply remorse for long periods of time without recalibration. However, when the emotional impedance varies in accordance with the season, the weather, or what's for supper, the Repenter must be recalibrated. It is necessary to return the Repenter to the manufacturer for recalibration since the exact standards of human nature are as yet unknown. The Response of the Repenter is essentially flat over the the entire sad gamut of emotional range, being less than 3 dB down at the Remorse end, and only 2 dB down at the Indifferent Compunction end. Where a flatter characteristic is desired, the Repenter may be flattened with any convenient pile driver.

Selectivity

The Repenter is provided with a vernier dial (Mergenthwirker Type DTs) which enables the operator to discriminate between recurring cycles of despair differing by as little as a single blue note to as much as a complete nervous breakdown. Thus, for 2 moods off resonance the response is only 40 dB down and the bandwidth at 10 times down is plus or minus 17 kilopangs (two moods off resonance being equal to a front-to-back ratio of 22,222 dB).

Power Output

The Repenter is designed to efficiently deliver a maximum output power of 60 Whats RMS (Room for More Stations), this being greatly in excess of the power normally required for ordinary ham use. In fact, 60 Whats would cause the operator to "buy in haste and repent at leisure." Therefore, the operator is cautioned not to utilize the full power output unless he belongs to the group called problem people.

Continued on next page

Circuit Design Considerations

Spurious or parasitic remorse is prevented by the use of Pang suppressors in the Mud Valving circuits. The Repenter must always be operated at the highest possible sobbing point. Sobbing-point measurements can be made from readings of the Flow and Ebb meter on the front panel. This meter is of the Past Mistakes type, having 1000-Ohs-per-volt sensitivity, and will indicate how lousy things are going. Where conditions require a "filled-with-remorse" state, as in the range 14 Kilowracks (14 KW), the operator should carefully adjust the Racking Trilks, since the device has an inherent tendency toward self-oscillation at these frequencies. Careless adjustment would cause the Repenter to break into a violent state of sobbing which could build up in amplitude to a peak power of over 150 qts. This would instantly swing the Worry current sinusoidally and a state of mental exhaustion would prevail. The author has carefully investigated this phenomenon and recommends the use of several antilament chokes connected in series with the screens of the No-Nox tubes. Such chokes will effectively damp out all but the racking type of sob. The dampness is controlled by a Lachrymal potentiometer located on the rear panel. All Platonic voltages and Plague currents for the tubes are supplied by a single prejudice supply adequately filtered by use of two open chokes and two leaky capacitors. (Similar components may be picked up at any surplus store.)

Controls

All controls are brought out to the front panel for accessibility. For ready maintenance on the interior of the cabinet the 35 knobs and 15 clamps are removed, and the front panel is then removed by unscrewing 216 machine screws and running an acetylene torch along the edges of the panel. Since all wires and component parts mounted inside the cabinet are embedded in sealing compound, a trough should be placed below the front panel when it is removed. Ofttimes it may be necessary to blast the panel loose (Corrosion, you know). The Repenter is therefore equipped with a detonator charge directly in back of the front panel. To set off the charge, merely hit the Gravity switch with any long stick. (Caution: Operator should practice hasty exits before tripping Gravity switch — this maneuver not recommended for old-timers).

Preselector Attachment

The Expectation preselector is essentially a Faze inverter. Should the attitude of the Repenter become optimistic, the preselector instantly shifts the Attitude current 180 degrees out of faze through a simple Remorse Canopy network (R/C faze shifter) creating a pessimistic outlook which is then fed into a class 4F modulator. By means of the thrush discharge characteristics of this Class 4F modulator a Widget is caused to absorb the output of the Attio-amplifier faster than it can be supplied. The net result is that a regression into the past is obtained. This regression essentially is a negative projection, and should bring forth from the past many objects, words, etc., to repent.

Continued on next page

Operation

The operator should turn on the Repenter and wait a while (45 hours, 15 minutes, 8 seconds) for the tubes to reach normal operating temperature. The Repenter is now ready for its first assignment. Generally, the first assignment is used to determine if the apparatus is functioning properly. This should manifest itself to the operator by a great surge of repentance for having purchased the instrument. The procedure outlined below should be followed for best results.

Turn switch SW-3 to the Remorse position and advance the Futility output control to about half-scale. Rotate the Sob dial to the setting marked "Pangs" and look at the invoice marked "price". Observe that the Repenter has a single high-amplitude pang and note the instant cessation of doubt at having bought that surplus. If it is found that following this reaction a desire to purchase more surplus persists, the Obsession control was adjusted too high. If a slight lingering feeling of guilt is noted, the Idiosyncrasy control was set too low. The Expectation preselector attachments should then be attached to the Repenter and tested by connecting test cord T 153/4 to jack marked "Anti-out" and then to "Reg-in" and from "Ut. Fut. On" to "Ant. Hyb. In". Then advance Repenter output. Set Gripe control to "Hppn" and turn Plight switch to "Anythg Cn Hppn" and observe that the Agastat picks up. Normally an idling current of approximately 0.4 gills is satisfactory, although there are exceptions. A few more gills of expectation will do no harm, however. The reader is referred to the author's text titled "The Snore-a-scope", soon to be released, for further details.

(Ed: I did it and I'm glad)

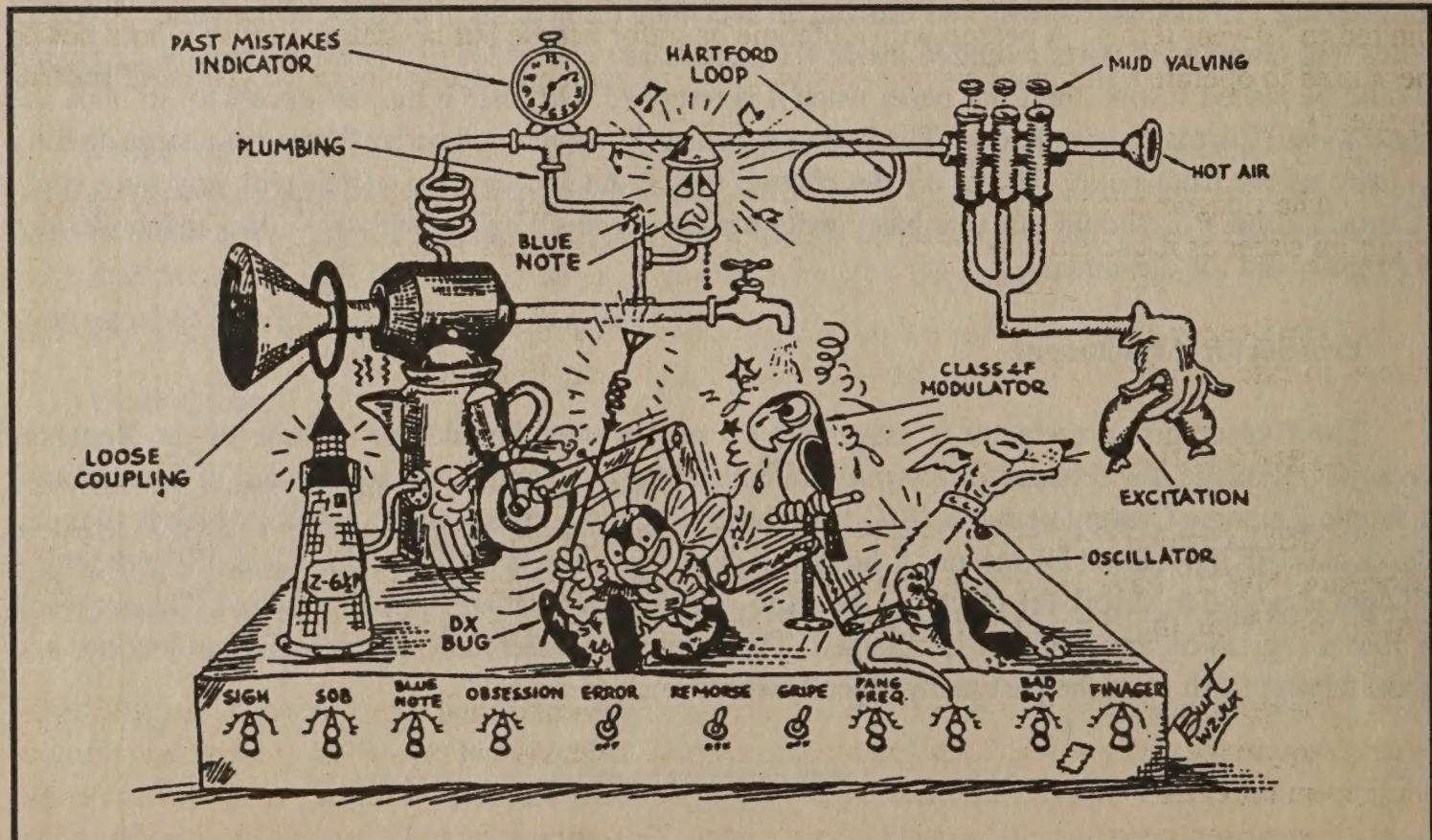


Fig. 1 - Parts layout for complete Repenter.

American Radio Relay League Report

by John Swafford, W4HU

This ARRL Report provides a brief summary of information published in the ARRL LETTER and other reports. The LETTER provides timely news of interest to active Radio Amateurs. Any League member may subscribe to the ARRL LETTER.

League seeks lifetime amateur operator licenses.

The ARRL on January 6, 1994, petitioned the FCC to make Amateur Radio operator licenses valid for a life-time

The League said in its petition that there is nothing in the Communications Act of 1934 that would prevent such a license term for amateurs, and that a lifetime operator's license would allow inactive amateurs to return to the Service at the same class of license without the necessity for retesting.

The League believes that the number of amateurs who would benefit from such a lifetime license would be "relatively substantial."

The League said that under the current 10-year license term, with a two-year grace period, it already is possible for relatively inactive amateurs to remain licensed for long periods of inactivity. There is no practical difference, the League said, between such a person and one who allows his or her license to expire and later wants to again become involved in Amateur Radio.

This proposal would apply only to operator licenses; station licenses would still, by law, be limited to 10-year terms. A person with a lifetime operator license but no station license would not be permitted to operate a station of his own (but would be permitted to operate from the station of another amateur).

The League said that nothing in this proposal should have any effect on the call sign issuance program either as it currently exists or as proposed (the "vanity" call sign program).

The League also said it was not proposing to make this rule change retroactive at this time, but, rather, to extend currently held operator licenses from 10 years to lifetime.

League testifies at New Jersey RF hearing.

ARRL General Counsel Chris Imlay, N3AKD, and Northern New Jersey Section Manager Rich Moseson, NW2L, have led a delegation of hams in testifying against a proposed New Jersey state regulation which, they argued, could effectively shut down Amateur Radio in the state.

The regulation, proposed by the state Department of Environmental Protection and Energy (DEPE) would require the owners of all fixed-station transmitting antennas and certain RF-generating industrial equipment to register with the state and pay a hefty annual fee. The fees would pay for state inspections -- once every ten years -- to determine whether each RF source is in compliance with state limits for exposure to non-ionizing RF radiation. (The state limits are the same ones specified by ANSI -- the American National Standards Institute -- in their 1984 standards.)

The summary that was issued along with the proposed regulation stated that amateurs would be exempted "at this time," but there was no specific exemption in the regulation itself. And the department specifically invited comments on whether hams should be subject to the inspection program in the future.

The appearance by Imlay, Moseson, and about 10 other hams at a public hearing on January 11 in New Jersey's capital capped two weeks of intense efforts to spread the word about the proposal and to organize the ARRL response.

The proposal first surfaced the week before Christmas. As details emerged, it became obvious that the proposal posed a major threat to all ham radio activities in New Jersey. ARRL Hudson Division Director Steve Mendelsohn, WA2DHF, along with Moseson, asked ARRL President George Wilson III, W4OYI, to authorize Imlay's testimony at the DEPE hearing. Wilson agreed, noting the gravity of the threat to hams in New Jersey, plus the likelihood that, if the measure was enacted, other states might follow New Jersey's lead.

Some 50 people attended the hearing and about 20 testified, half of those being amateurs (although some hams appeared in their professional capacities). All of the speakers opposed the proposal, generally arguing that the state was duplicating FCC regulations and that those FCC rules already assured that workers and the public were protected from excessive RF radiation. They saw the fees as nothing more than a new tax on the businesses and people of New Jersey.

The first ham to testify was leadoff witness Vivian Lopez, N2NZN, a lawyer familiar with the state regulatory process. She challenged the DEPE's authority to enact the regulations at all, noting that the law under which they were proposed had been written to deal with threats from nuclear radiation, not RF.

"If the department seeks to stretch that authority as a basis for regulating whole industries," Lopez testified, "then the enabling legislation ought to first be amended to specifically grant that power."

Imlay and Moseson appeared on behalf of the ARRL. In his testimony, Imlay cited numerous court decisions, dating back to 1927, giving the federal government "exclusive" and "expansive" authority to regulate radio and TV. He also noted that the FCC had categorically exempted amateurs from routine reporting on compliance with RF exposure standards, and that RF safety questions are included on amateur license exams.

Moseson testified as to the likely impact of the regulation on Amateur Radio in New Jersey, explaining that annual fees of \$1000 or more for a typical station would simply force most hams off the air. Without ham radio, he said, the state would lose a vital emergency communications resource as well as endanger millions of dollars in federal emergency management aid, since backup communications abilities would be lost.

Continued on next page

Measurements difficult

Moseson also explained the difficulty of taking measurements at a typical ham station, which can operate on many frequencies with infinitely variable power levels and radiation patterns, as well as the stifling effect that the regulation would have on station changes and experimentation.

Finally, the ARRL representatives reminded the department that FCC rules limit state and local regulation of amateur antennas to the "minimum practicable" extent required to achieve their purposes, and that those regulations may not preclude amateur communication. Applying the proposed regulation to hams, the League argued, would effectively preclude amateur communication and would therefore be in violation of FCC rules.

The League's testimony concluded with a request that, if the department decides to enact the regulation, then, at the very least, it should specifically exempt any RF source that is "a component of a federally licensed station in the Amateur Radio Service," as defined by FCC rules.

There also was testimony from representatives of broadcasters, telephone companies, land-mobile users and municipal government. One municipal spokesman was Bill Sohl, President of the Mt. Olive, New Jersey, town council (as well as being K2UNK and an ARRL Local Government Liaison). He told the panel that, if his town applied the reasoning behind the proposed regulation to its police department, then each motorist in the town would have to register and pay a fee to the town to cover expenses in case the motorist violated a traffic law and a police officer needed to take time to write a ticket.

At the end of the hearing, department officials gave no indication of how they might respond to the criticisms leveled at the proposal. At the request of several witnesses, however, they did extend the deadline for written comments from January 20 to February 22. A final decision on the proposal must be made by December 6, 1994.

One week after the hearing, a new governor took office and appointed as DEPE commissioner a state legislator with a reputation for trying to accommodate business as well as environmental concerns. Moseson said he and others plan to work with the new state leadership. (This story was reported by ARRL Northern New Jersey Section Manager Rich Moseson, NW2L.)

ARRL BOARD OF DIRECTORS MEETING HIGHLIGHTS.

The ARRL Board of Directors met in Rocky Hill, Connecticut, on January 21 and 22, 1994. The following is a summary of meeting highlights. Details will appear in March QST.

o The Board re-elected its present slate of officers: President George Wilson III, W4OYI; First Vice President Rod Stafford, KB6ZV; Vice President Jay Holladay, W6EJJ; Vice President Tom Frenaye, K1KI; International Affairs Vice President Larry Price, W4RA; Treasurer Jim McCobb, K1LLU; Secretary and Executive Vice President David Sumner, K1ZZ; and Chief Financial Officer Barry Shelley.

Continued on next page

o Elected to the Executive Committee were Rocky Mountain Division Director Marshall Quiat, AG0X; Hudson Division Director Stephen Mendelsohn, WA2DHF; Delta Division Director Joel Harrison, WB5IGF; and Great Lakes Division Director Al Severson, AB8P.

o An interim report and band plan recommendation of an ad hoc committee was adopted, looking to the early implementation of the expected allocation of 219 to 220 MHz for limited amateur use.

o The 1994-95 ARRL budget plan was adopted.

o The Volunteer Resources Committee was tasked with studying the feasibility of a system of technical awards to recognize achievement in fields ranging from design and construction to the creation of innovative communication systems, and to develop appropriate criteria.

o The League will file a petition for rule-making seeking to remove overly restrictive rule provisions concerning the use of spread spectrum techniques, and an ad hoc committee was created to recommend technical standards.

o The Membership Services Committee will study the possibility of relocating the 40-meter Novice subband. The committee will report back to the Board in July.

o The Board approved a revision of the ARRL/Red Cross Statement of Understanding.

o ARRL Headquarters will begin to notify members of license expirations, and will include a Form 610 to effect license renewals.

o The Administration and Finance Committee will study the feasibility of offering group legal defense insurance to ARRL members to cover legal costs in antenna cases and RFI lawsuits.

o The ARRL Letter will be offered to affiliated club newsletter editors free of charge, on a trial basis.

o The Administration and Finance Committee was asked to investigate the development of a multi-media production capability for Headquarters, to keep pace with the changing technology in today's personal computing revolution.

o Perry Williams, W1UED, was commended for 40 years of dedicated service and congratulated on the occasion of his forthcoming retirement from the Headquarters staff, in April 1994.

DX DX DX

By John Kanode, N4MM

NEW PREFIXES FOR RUSSIA AND FORMER USSR REPUBLICS

This constant changing of the prefixes for Russia and its former Republics seems to be an ongoing situation and it can get very confusing at times. Below is a list of the prefixes effective January 1, 1994. No guarantee that it is 100% correct. The prefixes in use over there have a habit of changing without notice or reasons.

COUNTRY	OLD PREFIX	NEW PREFIX
Armenia	RG, UG	EK, 4J?
Azerbaijan	RD, UD	4K5-4K9, 4J?
Belarus	RC, UC	EU, EV, EW
Georgia	RF, UF4L	
Kazakhstan	RL, UL	UN, UO, UP, UQ
Moldova	RO, UO	ER
Kyrgyzstan	RM, UM	EX
Russia	RA, UA, RV, UV, RW, UW, RZ, UZ, 4K, etc	R, UA-U1, 4K0-4K4
Tadzhikistan	RJ, UJ EY	
Turkmenistan	RH, UH	EZ
Ukraine	RB, UB, RT, UT, RY, UY	UR-UZ, EM, EN, EO
Uzbekistan	RI, UI	UJ, UK, UL, UM

APPROVED OPERATIONS

Call	Operations beginning
C53GK 19	May 1992
D2SA 15	September 1993
J5TUBA 27	April 1993
JT1/KB9IBZ	10 November 1992
T5/TU4EC	10 December 1992
TR8YA 8	April 1992
TU4EC 30	April 1992
TU4EF 7	July 1992
TU5AX 25	November 1992
TU5BA 11	December 1992
TU5BD 11	December 1992
V26A 28	October 1993
VP9/K8PYD	22 November 1993
VP9/WB8YJF	22 November 1993
XU5DX 1	January 1993
XU5SE 1	January 1993
YI1RJ 22	October 1991
5R8DK 17	March 1993

UPCOMING DXPEDITIONS

Croatia	9A/K4XU	Jan 5-April 1
Br. Virgin Is.	VP2V/W2GUP	Jan 23-March 17
Pratas Is.	BV0ARL/BV9P	March 1994
So. Cook Is.	2K1AVY	March 4-10
Ghana	9G by XT2BW	Feb-April
Kerguelen	FT5XJ	Now to July
Nauru	C21/WK3D	March 9-14
Svalbard	JW5EBA	Jan-June
W. Kiribati	T30JJ	March 2-8

UPCOMING DX CONTESTS

ARRL International DX Contest (Phone)	March 5-6
BARTG Spring RTTY Contest	March 19-20
Bermuda Contest	March 19-20
CQ World Wide WPX Contest (Phone)	March 26 27

TIDBITS

On May 6, 7 and 8, 1994, the special calls of G0CT and TM4TSM will be active from respectively, Grid JO00TS and The French Dept.# 62 to celebrate the opening of the tunnel under the North Sea, linking the continent with Great Britain. These stations will operate on all modes on HF, VHF and ATV. Activity will be the entire three days. Teams from FIRAC, REF 62 and BRARS will be happy to make contact with you and send you a special QSL card to commemorate the first day of tunnel operation.

Renowned DXpeditioner Lloyd Colvin, W6KG passed away on December 14, 1993 while in Istanbul, Turkey. He and his wife, Iris put many countries on the air over the last 20 years. I first worked Lloyd back in the mid 1950's when he was still in the service in Germany. One thing for sure with Lloyd and Iris, if you worked them you got a QSL. When I applied for the YASME Award several years ago, most of the contacts to qualify for the award were those with Lloyd and Iris. I had the pleasure to meet them at many ARRL Conventions over the years. Lloyd will be missed but not forgotten.

Chuck Hutchinson, K8CH, Manager of ARRL Membership Services reports that over 1000 of the new style #1 Honor Roll plaques have been sold. The first edition of the DXCC Yearbook should be out by the time you read this. I had the pleasure to see the printer proofs on it and it is going to be a first class winner.

As of January 1, 1994, DXCC Field Representatives will be allowed to check cards for any new DXCC except for 6 meters, 2 meters and 5 Band DXCC.

ELMER'S CORNER

By Paul Wilkins, AB4CY

Bits and Bytes in Communication

We communicate largely by using aural (sound) and visual symbols. All of the words in the English language are made up from the 26 letters of the English alphabet which are the symbols. Other languages are made up of different symbols. The dictionary lists defined words that begin with every letter of the alphabet, some words are a single letter while others are long like hemidemisemiquaver; look that one up in your dictionary! When it comes to communicating electronically, we use pulse (CW), analog (AM, FM, SSB, etc.) and digital modes (packet, RTTY). For pulse and digital communications we use only two symbols a 0 and a 1 (voltage, frequency or current present or not). A digital symbol is a "bit" while a digital word consisting of a fixed number of bits is a "byte". A two bit digital word length language has only four words, 00, 01, 10, 11, that's all she can write.

A four bit digital word length language has a 16 word vocabulary which doesn't sound like much but early microprocessors and video games functioned quite well on the limited vocabulary. The breakthrough came with the 8 bit word which allowed a 256 word vocabulary. Several generations of personal computers have depended on 8 bit word technology. The ASCII code (American Standard Code for Information Interchange) has a 7 bit word length which allows the encoding of the entire alphabet, upper case and lower case, the numbers, punctuation signs, and a number of non-printable control functions like page advance or ringing a bell on a printer. Greater word capacity is generated by increasing the word length by stacking two 8 bit words together to make a 16 bit combination that has more than a sixty thousand word capacity. As the word length increases the vocabulary expands tremendously. Personal computer ads talk about advanced 16 bit or even 32 bit word length machines that provide significant improvements in speed, variety, or screen resolution.

Digital language words can be exchanged in parallel or serial sequence. Parallel speak is fast because all bits are presented at once on parallel wires that conduct each bit simultaneously which means a multiwire cable. This is used on closed circuits like printers attached to computers. Serial speak requires only two wires like a telephone or radiotelephone circuit where the bits are sent serially at an agreed clock rate (baud). This is what a MODEM does, it serializes bits to modulate a carrier (MO) and then demodulates them at the receiving terminal (DEM). The original MODEMS exchanged information at 300 baud (about 30 WPM) but current Modems operate at 1200, 3600 and up to 19.5 Kilobaud.

Symbol systems are interchangeable through conversion codes like using foreign language dictionaries. The four bit binary code used to represent the ten arabic numerals 0-9 starts with 0000 and ends with 1001. This is known as a binary-coded decimal (BCD). The remaining possibilities are used in the hexi-decimal (4 bit, 16 symbol) system. The seven segment visual numeric display used to form visual display numbers for your transceiver readout (count them) is derived from the BCD code. There are PC chips that perform these specific conversions because they have become so common, and they are now duck-soup. A little like the Morse code chips that will generate a Morse code letter's dots and dashes from a simple binary digit keyboard input request.

A few years ago, our kids were subjected to the "new math" curriculum which introduced symbols in addition to our traditional ten (0 to 9) so they had additional "number symbols" like *, #, and @ to expand the number base to include numbers like 1*5 or 6@5. The principal is fine, provided you understand what is going on. You can say words in any language that stand for mother or child but the symbols you use will vary greatly.

PUBLIC INFORMATION COORDINATOR MARYLAND/DC SECTION

Melvin J. Morenz N3EKZ
416 Brooks Court
Glen Burnie, MD 21060-7616

Voice: (410) 760-9426
Packet: N3EKZ @ WB3V.MD.USA.NA

PUBLIC INFORMATION OFFICER APPOINTMENTS

Congratulations are in order to Steve Beckman, N3SB who has been selected by the Carroll County Amateur Radio Club as their new PIO! Steve is also the current editor of their excellent club newsletter, News Waves. Steve may be reached in several ways. His numbers are:

PH W: (410) 583-4321	Packet: N3SB @ K3PZN
H: (410) 876-1482	Internet: S_BECKMAN @ DELPHI.COM
FAX: (410) 832-2258	

The club members and the Section Staff are pleased to welcome Steve into his new appointment.

PIO's WANTED

Public information Officers are the individuals that give your club exposure to the general public with announcements of your current events, club meetings and any other amateur radio activity. Most clubs have a newsletter or information sheet that is provided to their members. Someone has to write it and most often that same person will also provide the news releases for the club to the local media. No matter if it is the editor of the newsletter or some other dedicated individual, if your club has such a person, give some thought about giving them the recognition they deserve and ask them if they would like to be the PIO for your club. If you do not currently have such a person performing this function consider appointing one.

By advertising your activities you may spark an interest in someone to attend your meetings and if they do not currently hold an amateur license it may entice them to obtain one.

The goal is to have an appointed PIC for each club within the Maryland/DC Section. Please contact me, your club offices, or any of the Section Staff for additional information and application form FSD-187 APPLICATION FOR STATION APPOINTMENT. This same form is good for other appointments, such as Official Relay Station (ORS), Official Emergency Station (OES), Official Observer(OO), Official Bulletin Station (OBS), Technical Specialist (TE) or Local Government Liaison (LGL). If any of these positions appeal to you, ask for a copy of form FSD-187 and additional information about these appointments. Do it today!

Continued on next page

LAUREL GENERAL LICENSE CLASS

The Laurel ARC will conduct its Spring Class for the General Class License began on Monday, February 28th and class is held each Monday through the end of April, culminating in an exam given by the Laurel VE team through the Laurel VEC. The class and the exam is free. The classes will be held from 7-9 p.m. at the Fairland Aquatics Center at 13820 Old Gunpowder Road near Laurel. For additional information and to register, please call Pud Reaver, W3DQI, 301-498-6293 or Jim, W13N, 301-725-6829.

LAUREL ARC SUPPORTS WASHINGTON BIRTHDAY MARATHON

The Washington Birthday Marathon sponsored by the D.C. Roadrunners was held in Beltsville at the U.S. Department of Agriculture on February 20th. The LARC again provided communications around the 26.2 mile course, and also provided live audio to the audience in the Recreation Center so that family and friends could keep track of their favorite runner.

NASA/GODDARD TO SPONSOR LICENSE CLASS

The NASA/Goddard Amateur Radio Club is considering to hold either a Novice/Technician class or Technician-to-General class if there is a need in the greater Greenbelt, Maryland area.

If you know of someone who may be interested, drop Pat Kilroy, WD8LAQ a packet (WD8LAQ @ WB3V), a letter to the club address, or phone the information contact for the club:

Jim Flackwell at (301) 286-0453 or
Vikki Gegante at (301) 249-2609

and specify in which class you are interested.

It is thought that the class may start immediately after Easter in early April. Any thoughts or comments will gladly be accepted.

REMEMBER OUR DEADLINE!

**The Deadline for submissions to AUTO-CALL MAGAZINE is
the 5th of the month prior to the month of publication.**

(i.e. If you want your item published in the April issue it must be received no later than the 5th of March.)

This policy will be strictly enforced!!

SKYWARN THE COLD FACTS

The National Weather Service (NWS) activated SKYWARN three times during January for winter storms. of the three activations, the ice/snow/sleet/sub Arctic temperature storm of January 16-17, 1994 created the greatest challenge for the SKYWARN Amateur Radio Net.

The NWS set off the SKYWARN pagers at 5:56 am on January 17, 1994. Snow was already being reported in the western counties of Maryland, the eastern panhandle of west Virginia and the southern Shenandoah Valley. SKYWARN went into its winter snow mode with hourly checking nets. At the top of each hour, from 7 am until 1 pm on January 17th, off site net control volunteers received reports of severe weather from the entire net and relayed them to the NWS.

Extensive use was made of packet on 145.73 MHz. All packet messages received at the NWS were printed in hard copy as they were received. The forecasters found these messages extremely important and useful as they tracked the storm as it changed from snow to sleet, to freezing rain, and often back again. At approximately 11:15 am the lead forecaster requested that the SKYWARN Amateur Radio Station at the forecast office be staffed because the precipitation had begun to change to freezing rain. The forecasters accurately anticipated that the freezing rain would make many roads extremely hazardous, if not impassable, with the real possibility of loss of power and communications. The NWS wanted to make sure that the SKYWARN Amateur Radio Station was staffed with individuals who could stay over night should travel become impossible. The station was staffed from 1 pm until approximately 11:30 pm and hundreds of extremely important reports were relayed to the forecasters throughout the event.

In retrospect, despite the warnings about the impending ice storm, few people anticipated the incredible impact that the Arctic temperatures would have on the local area. These included the disruption of transportation, frozen and burst pipes in homes, broken water mains and burst fire sprinkler systems. The demand for electricity and natural gas was so high that the electric power companies requested a shut down of businesses and the government in the nation's capital in order to avert a regionwide, uncontrollable black-out. Natural gas was shut off to some areas of Prince George's County due to the excessive demand. many areas experienced rolling electric power blackouts.

Perhaps it is time to take a look at your emergency plans for alternate heat and cooking sources to be ready for such events in the future.

In anticipation of possible wide-spread communication failures, HF was successfully set up at the NWS using the temporary G5RV antenna and the loaned Icom 730 from the Vienna Wireless Society. The test worked well even though the anticipated communications failure never took place and the state emergency nets were never activated.

SKYWARN ADVISORY COMMITTEE MEETS on January 11 and 23, 1994 the Quarterly SKYWARN Advisory Committee met at the NWS. West Virginia, Maryland/DC and Virginia ARES, RACES and REACT were represented.

Continued on next page

SKYWARN - Continued from page 20

It was decided that the best VHF link into the eastern panhandle of West Virginia from the NWS was through the 146.745- repeater. The NWS will continue to make plans and arrangements with other NWS offices and SKYWARN programs throughout the country to use HF for emergency back-up communications and during severe weather. There is little doubt that this preplanning will be prove extremely important.

Initial plans are being laid for an upgraded SKYWARN packet system. It is likely that it will be on 440 MHz to take some of the load off 2 meters. The goal is to provide a parallel packet path into the NWS. More details will be announced as they become available.

Dan KC40CG

SKYWARN TRAINING SCHEDULE AT NWS STERLING, VA

BASIC I

Saturday, February 12, 1994 1 pm-4 pm
Thursday, February 24, 1994 7 pm-10 pm

Basic II

Wednesday, February 23, 1994 7 pm-9:30 pm



TRAFFIC FUN

By Geri Sweeny, N4GHI

Aside from being an immense aid to your community, you can gain a great deal of enjoyment from being a traffic handler. A feeling of satisfaction comes when you are able to help. You often share the pleasure that delivering or originating a message can produce. Contentment comes from extending help by passing Health and Welfare traffic, as in the recent Los Angeles earthquake. It is also advanced with special event stations, such as the recent 'First Night' in Annapolis (WA3YLO). Traffic handling is your window to the world as you observe messages flowing by about everything from soup to nuts. It's also a great place for fellowship. Few other radio activities allow you to make so many good friends.

Many certificates are available for traffic handlers. Aside from the numerous paper ones, a special metal medallion is available for handling approximately 250 messages per month, for three months. Perhaps the ultimate is achieved when your peers nominate you for the top op award (A-1 Operator Club). A good certificate to start with is the 'NTS Message Origination Award'. You get this for originating just 4 messages one month. You can ask your family, friends, co-workers, neighbors, if they want you to send a message to someone.

What kind of message you may ask. Greetings are nice. Who wouldn't like to get a 'thinking of you' message. They should be short - about 25 words. And, you can ask for a reply.

Once you have a message to send, how do you do it? Traffic handlers are using all modes. You can select a National Traffic Net (sponsored by the ARRL), or an independent net. Both come in SSB and CW. You can use packet. There are several good PBBS's in our area. Much of our international traffic (per third party agreement list), goes via satellite. WA9FCH, in Reston, runs an APLINK (AmtorPacketLINK) station. Thus, many messages originating on a PBBS in our area are likely to go to WA9FCH. They then continue toward their destination, forwarding automatically (HF) on AMTOR, until they switch back to a local packet board.

National Traffic System leaders are chosen by each Section Manager. SM's are elected by ARRL members every two years. Most states form a section, though some (like California), have more than one section. Virginia and Maryland/DC, each have a Section Manager. SM's select a Section Traffic Manager to administer and direct traffic in their Section. STM's appoint Net Managers who implement the whole process. Net Managers need liaisons for each net who keep the traffic moving.

NTS nets in our area:

* 2 meters (NVTN) No Va Traffic Net 7:30 pm daily 147.30/90 N4DCC

HF	(VTN) Va Traffic Net	1:00 pm	3907	K4BGZ
	(MEPN) MdEmergencyNet	6:00 pm	3920	KK3R
	(VSBN) VaSideBand Net	6:00 pm	3947	W7UQQ
	(MDD) Md DC	7/10 pm	3643	K3GHH
	(VN) Va Net	7/10 pm	3680	N4GHI
	(VLN) Va Late Net	10:15 pm	3647	KN4US

Continued on next page

TRAINING CW NETS

(VSN) Va Slow Net	6:30 pm	3680	N4KSO
(MSN) Md Slow Net	7:30 PM	3717	KC3Y

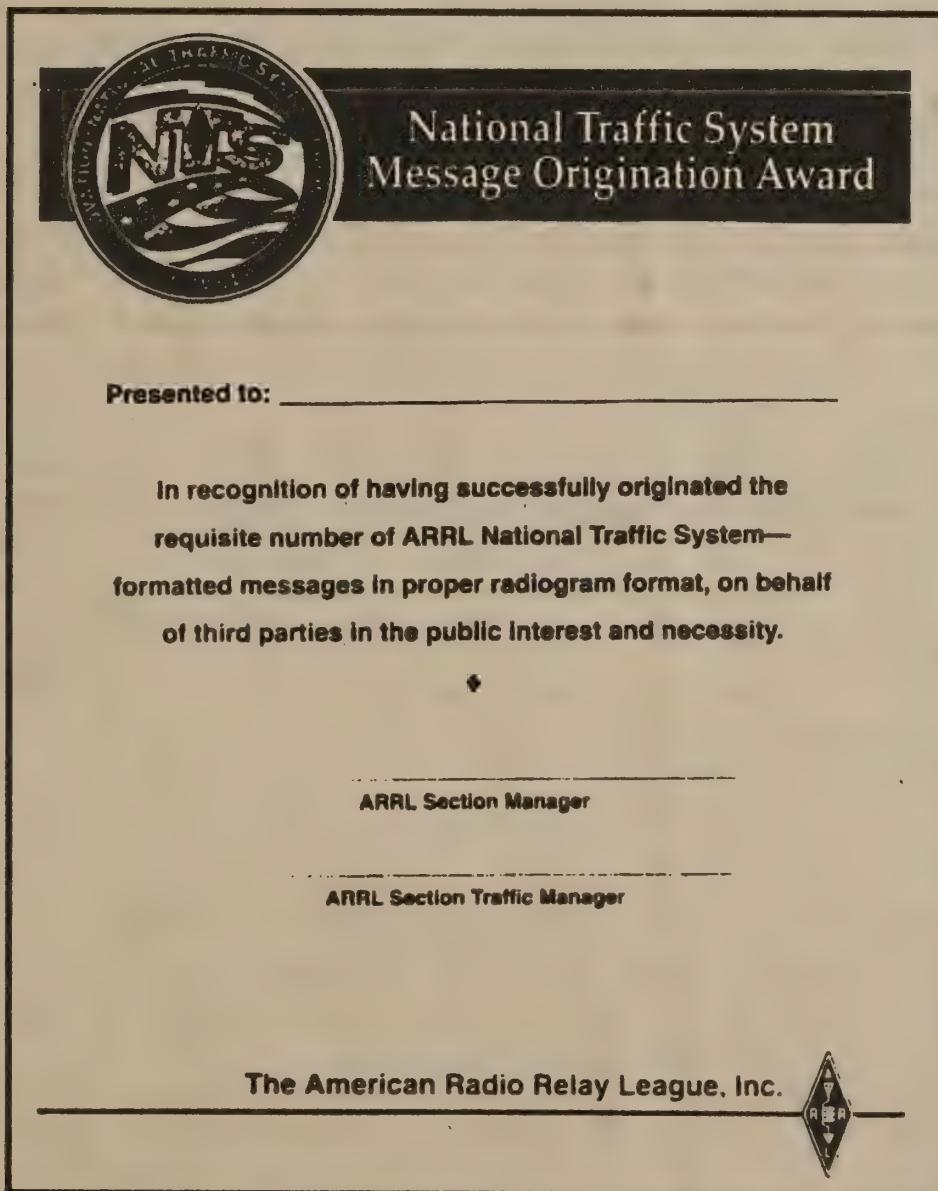
PACKET (MPTN) Md Packet Net WB3V

* covers the greater metropolitan and northern Shenandoah Valley.

It's nice to have a traffic Elmer. Each of the 70 member clubs listed in Auto-Call should have one person who can help answer questions about traffic. If you know of any traffic handlers in your club, let me know. I can list them next month so that others can use this valuable resource. Or, if you find that your club has no traffic handlers, perhaps you can fill the notch.

N4GHI @ WA3TAI 703/360-3773

There is activity for everyone in traffic handling. Listen in and give it a try. Whether the music of CW, a friendly voice, or a quiet screen; traffic handling is fun.



1994 ANNUAL SPRING BANQUET
FOR ALL GREATER WASHINGTON AREA RADIO AMATEURS
SPONSORED BY THE FOUNDATION FOR AMATEUR RADIO,
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PRINCIPAL SPEAKER: RICHARD C. KIRBY, WØLCT/HB9BOA
(DIRECTOR, RADIOPHYSICAL COMMUNICATION BUREAU,
INTERNATIONAL TELECOMMUNICATION UNION, GENEVA)

MENU: Grilled Chicken with Dijonnaise sauce

Social Hour: 6:30 p.m. Dinner: 7:30 p.m.

\$24 PER PERSON (\$25 at door)

RESERVATION FORM BELOW

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Enclosed is \$ _____ for _____ reservations at \$24 each

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Guest's Name(s), Call(s) _____

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AC 394

Pick up your ticket(s) at the door

SENIOR INTERNATIONAL RADIO OFFICIAL TO ADDRESS 1994 BANQUET

Richard C. (Dick) Kirby, the speaker at the 1994 banquet (see opposite page), is the senior-ranking U.S. citizen on the staff of the Geneva-based International Telecommunication Union, the specialized UN agency for telecommunications. As head of the ITU's Radiocommunication Bureau, he is arguably the senior radio official of the planet Earth. A licensed radio amateur since 1938, he is active in and has served as president of the International Amateur Radio Club, which operates 4U1ITU at ITU Headquarters.

Dick Kirby received the call W9LCT in Rochester, Minnesota at the age of 15, and has been continuously licensed since that time. (W9LCT became WØLCT when the tenth call district was created). Initially, he was active in HF CW traffic handling and frequently qualified for the Brass Pounder's League. Much of the traffic was to or from patients in hospitals in Rochester, the home of the Mayo Clinic. He became an ORS, a member of "Trunk Line A" across the northern U.S., and organized and was first NCS of the Minnesota State Net.

A technical paper he wrote in high school on "The Ionosphere and Amateur Radio" was selected for presentation at an annual meeting of the Minnesota Junior Academy of Science in St. Paul – and radio propagation later became his major career interest. During WW-II he served in the Signal Corps Radio Propagation Unit at Camp Holabird, Md. He was responsible for frequency coordination for the Pacific Theater, where he assisted Philippine authorities in restoration of frequency authorizations, and was issued one of the first post-war Philippine amateur licenses. He continued these frequency coordination responsibilities in GHQ, Tokyo, where he met a number of Japanese Amateurs who remain friends and professional associates to this day.

In 1948 he joined the National Bureau of Standards. During his research career with NBS and its successor organizations, most of his ham activity was experimental. He was one of the early (1950's) experimenters with ionospheric scatter; was instrumental in establishing the NBS "WWI Beacon" at 49.8 MHz for 6-meter hams interested in sporadic E propagation; and under the tutelage of the late Ross Bateman, W4AO, he operated via 2-meter tropospheric scatter.

Dick progressed from experimentation to management of research and experimental programs, becoming Director of the Institute for Telecommunication Sciences at Boulder in 1968, and later an Associate Director of the Office of Telecommunications of the U.S. Department of Commerce.

In 1974 he was elected Director of the International Radio Consultative Committee of the ITU. There his duties enabled him to serve the worldwide amateur community by acquainting the world's telecommunication authorities with the many capabilities of the Amateur Radio Service, and the advantages of fostering the Service within their own Administrations. He continued his amateur activities during this period, having been assigned he call HB9BOA.

Over the years, Dick has been an active and dedicated amateur. He received QCWA's Presidential Award in 1992 "for ensuring equitable availability of frequencies for worldwide amateur radio activities, 1974 to 1992". He noted at that time that "Amateur organizations have helped the ITU provide for and protect this great hobby -- this training ground for science and technology -- this communication service in distress and disaster -- this bond among friends around the globe".

THE NEW GENERATION ROTATORS

THEY'RE NOT YOUR FATHER'S HAM "M"

Rotator Comparison Chart

Model/ Specs	The New Generation								Old Generation		
	Create RCS	Create RCSA	Create RCSB	Emoto 105TSX	Emoto 747SRX	Emoto 1105MSX	Emoto 1200FX	Emoto 1300MAX	Emoto 1800FSX	Telex HamIV	Telstar TZX
Reverse Torque Freq	43	116	160	37	50	57	143	215	287	67	63
GD2 Kgm ² Ant. meters	N/A	N/A	N/A	100	400	700	1000	1800	3000	N/A	N/A
Brk/Static Torque Freq	508	1085	1450	215	502	717	1290	1792	2150	417	750
Wind Load In Tower (lb)	10	25	25	11	22	27	27	33	36	15	20
Mast mount	4	5	7	5	9	12	12	15	16	7.5	10
Rotating speed 360°	60-150 sec variable	60-150 sec variable	60-150 sec variable	55	35	65	40	77	80	60	60
Rev. Delay	None	2 sec	3 sec							None	None
Preset	Opt 3	Opt 3	yes	no	no	Opt	yes	yes	yes	no	no
Computer	no	no	no	no	yes	yes	yes	yes	yes	no	no
Power	80VA	140VA	200VA	70VA	70VA	70VA	90VA	120VA	150VA	26V AC	26V AC
Mast Use	2-2.5 in	2-2.5 in	2-2.5 in	2-2.4 in	1.6-2.4 in	1.6-2.4 in	2.4-3.1 in	3.5-5.5 in	2 in	2 in	
Control wire	7 cond	7 cond	7 cond	7 cond	7 cond	7 cond	7 cond	7 cond	8 cond	8 cond	
Vertical	800	1540	1540	660	1100	880	1780	1780	2200	400	800
Wind Load #											
Rotor wire	13	17	20	7.5	9	11	11	13	39.5	24	28
Brake type	worm drive	worm drive	worm drive	disk	friction	friction	friction	friction	friction	wedge	wedge
Self timer	yes	yes	yes	Adj	Adj	Adj	Adj	Adj	Adj	no	no
Mast clamp											
Special notes	3-6	3-6	3-6	6	1-6	6	2-6	6	6	4-7	4-7
Phone (5)	\$269.00	\$449.95	\$799.00	209.95	399.00	589.00	679.00	1099.00	3272.00	369.95	439.95
With Preset	\$379.00	\$528.95				\$643.00					

Notes:

1. Turns Teflonized 475F in 26 seconds

2. TZX and HamIV have same motor and gear train parts

3. EEB price as of 5/91 duty to change

4. 120V normal 220V special order

5. Variable speed 40 sec max

6. EEB price as of 5/91 duty to change

7. Wind Load in Sq. Feet

8. Variable speed w/20% constant reduced torque at any speed

9. 120/220 tested inverter

THE NEW GENERATION

An entire generation of amateurs have grown up knowing only one rotator manufacturer. Those old favorites are still popular. But, now a new generation of rotators are out to set high standards with innovative features such as: large machined steel gears, cast and machined aluminum cases, solid state controllers for smooth start/stop, preset, computer control and circular position indicators.

The bottom line is... strong, long term reliability, ease of operation and cost effectiveness. When you erect an antenna system the last thing you need is rotor problems!

CREATIVE DESIGN ROTATORS

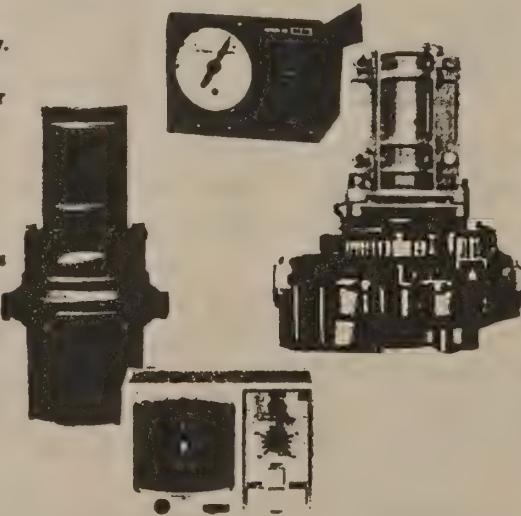
CREATE is serious about long term reliability. The CREATE RCS series rotators were designed with the serious DX'er in mind. Three models for medium, large and ultra large antenna arrays are available.

ROTOR FEATURES OF RCS SERIES

* Large strong reduction gear system provides long term reliability during years of rugged operation. * Worm drive gearing provides powerful braking force and low backlash to keep your antenna in position during severe weather conditions. * Cast and machined aluminum case provide the strength required for long lasting service. * Mast clamp guides for ease of mast installation.

CONTROLLER FEATURES OF RCS SERIES

* Speed control using silicon control rectifiers allows slow speed without reduction in rotation torque. Rotating spec is constant 60 to 200 seconds per 360 degrees. * Reverse delay control (RDC). Delays reverse command to rotor until antenna is at rest. Prevents damage to rotor antenna and tower system. * Circular dial indicator, for quick accurate reading of antenna direction. Great circle overlay available for USA (west-cent-east). * Preset (on 3 models) a must for quick setting of antenna direction. Just turn the knob to the new heading, the rest is automatic. Won't waste your time holding down the brake lever and wait.



EMOTO ROTATORS

More than 60% of all Japan amateurs use EMOTO rotators. Many unique innovations and international patents have made EMOTO number one.

EMOTO has a fool proof method to calculate which of their rotators will satisfy your needs. This GD² formula considers your antenna (s) weight, boom and longest element length. The EMOTO sheet is in metric so one must convert weight 2.2lbs= 1kg and length in meters 3.3ft=1 meter. Calculate your GD² then compare EMOTO GD² spec above.

$$GD^2 = W \times \frac{L^2 + B^2}{12}$$

Where: W: weight of antenna (kg)

L: length of longest element (m)

B: length of boom(m)

GD² EXAMPLES: Kgm²

TH7DX (437), TH3JR (63), 205BA (675), DISC7-3 (1300), A38 (61), A4S (173), KLM KT34XA (378), 3 ELE TRIBAND (150), 6 ELE TRIBAND (400), 20M 5 ELE (750), 15M 6 ELE (850), 40M 2 ELE SHORT BOOM (240), 40M 2 ELE FULL BOOM (800), 80M 2 ELE (1500), STACK ARRAYS 10M 5 ELE (60), 15M 5 ELE (200), 20M 5 ELE (750), $60+200+750=1010$

EMOTO also has a robust AZ-EL rotator that has computer I/O ports. For those working satellites or EME moon bounce the EV700D5X should do the job, as rotating torque is more than double the YAESU G5400B AZ-EL.

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Anne Arundel Radio Club.....	Tony Young - WA3YLO.....	(301)262-1917
Arlington Amateur Radio Club.....	Fred Bardsley - WD4DHW.....	(703)533-0372
Antietam Radio Association.....	Robert Long - KD3JK.....	(301)824-5132
Baltimore Radio Amateur TV Society.....	Joe Chidester - W3SHZ.....	(410)602-0353
Fauquier Amateur Radio Club.....	Neil Spokes - AB4YK.....	(703)364-3861
Frederick Amateur Radio Club.....	Steve Bauman - W3FOA.....	(301)662-4552
Herndon Repeater Group.....	Michael Weber - WB8RDN.....	(703)450-2304
Laurel Amateur Radio Club.....	Pud Reaver - W3DQI.....	(301)498-6293
MADRAS.....	Larry Ziecheck - N3GKS.....	(301)984-6112
Maryland Mobileers ARC.....	John Baugus - N3JME.....	(301)551-3161
Montgomery Amateur Radio Club.....	Jane Rosenthal - AA3CQ.....	(301)762-6262
Mount Vernon Amateur Radio Club.....	John Forrest - WZ4A.....	(703)971-3905
NASA/Goddard Amateur Radio Club.....	Vikki Gigante - KA3PVS.....	(301)249-2609
Ole Virginia Hams ARC.....	John Fritsch - N4YOB.....	(703)791-5995
Pentagon Amateur Radio Club.....	David Boyd - K9MX.....	(703)659-6241
Rock Creek Amateur Radio Assn.....	Leo Boberschmidt - KA3TGY.....	(301)949-3954
St. Mary's County ARA.....		(301)862-2214
Shenandoah Valley ARC.....	Dale Streyle - N2IKY.....	(703)888-8427
Southern Maryland ARC.....	Vic Curtis - WA3YUV.....	(301)888-1388
Southern Patuxent ARC.....	Dwayne Kincaid - WD8OYG.....	(301)586-2177
Springfield Estates ARC.....	Will Schmitt - KD4CNX.....	(703)768-5709
Stafford Adult Education.....	Jerry Mullinix - AC4HK.....	(703)659-3905
Sterling Park Amateur Radio Club.....	Mark Johnson - WS3N.....	(703)430-3804
Tri-County Amateur Radio Club.....	John Creel - WB3GXW.....	(301)572-5124
Vienna Wireless Society.....	Paul Wilkins - AB4CY.....	(703)560-2779
Woodbridge Wireless, Inc.....	Loyd Davis - K8EI.....	(703)360-0248

FOUNDATION MEETING

The Foundation for Amateur Radio, Inc. meets at 8: p.m. on the second Wednesday of each month.

Visitors are always welcome

The next meeting will be March 9th at the
Lee Center, Alexandria, Virginia

Take Capitol Beltway to Exit 1 (US 1 North)

North to the second traffic light, Left on Gibbon Street to Fayette
Left on Fayette to dead end at Lee Center parking lot

Talk-in on 146.55

FOUNDATION FOR AMATEUR RADIO

VOLUNTEER EXAMINER COOPERATIVE

JOHN FORREST WZ4A
6111 BURNETT ST.
ALEXANDRIA, VA, 22310
(703)971-3905

NOTICES:

- * EFFECTIVE JANUARY 1, 1994, THE MAXIMUM ALLOWABLE VEC REIMBURSEMENT FEE FOR AN AMATEUR EXAM HAS BEEN INCREASED TO \$5.75.
- * EFFECTIVE JULY 1, 1994, THE GENERAL CLASS WRITTEN EXAM QUESTION POOL (ELEMENT 3B) WILL CHANGE. EXAMS ADMINISTERED AFTER THAT DATE MUST USE THE NEW QUESTION POOL. BE SURE TO USE STUDY MATERIALS APPROPRIATE FOR THE QUESTION POOL IN USE.

SCHEDULE OF EXAMINATIONS

1994

MARCH 5, 1994 (SATURDAY)

SOUTHERN PENINSULA AMATEUR RADIO KLUB (ARRL VEC)
PRE-REGISTRATION DESIRABLE
CONTACT: ED BRUMMER W4RTZ (804)898-8031

MARCH 6, 1994 (SUNDAY)

LANDOVER, MD - D.C.M. ARC (ARRL VEC) WALK-IN
CONTACT: FREDDIE BATTLE NG3G (202)546-9348 (DAY)
(301)773-2898 (EVENING)

ELKINS, WVA (MOUNT. ARC VEC) WALK-IN
CONTACT: (304)637-0506

MARCH 12, 1994 (SATURDAY)

DAVIDSONVILLE, MD - ANNE ARUNDEL RADIO CLUB (LAUREL VEC)
WALK-IN
CONTACT: NANCY ALLEY NT3Z (410)761-7115
BOB ISRAEL WC3I (301)262-5083

Continued on next page

MARCH 12, 1994 (SATURDAY)

ALEXANDRIA, VA - MT. VERNON ARC (LAUREL VEC) WALK-IN
CONTACT: FRANK MACKEY N4GUS (703)455-1510

MARCH 19, 1994 (SATURDAY)

LAUREL, MD - LAUREL ARC (LAUREL VEC)
PRE-REGISTRATION DESIRABLE
CONTACT: JOHN CREEL WB3GXW (301)572-5124 AFTER 6 PM

MARCH 23, 1994 (WEDNESDAY)

GLEN BURNIE, MD - MARYLAND MOBILEERS (LAUREL VEC)
PRE-REGISTRATION REQUESTED
CONTACT: JERRY GAVIN - NU3D (410) 761-1423

MARCH 26, 1994 (SATURDAY)

GLOUCESTER, VA - GLOUCESTER RADIO AMATEUR COLLEGE OF
EXAMINERS (W5YI VEC) PRE-REGISTRATION DESIRABLE
CONTACT: FRAN STERLING KD4UEY (804)693-2117

APRIL 3, 1994 (SUNDAY)

LANDOVER, MD - D.C.M. ARC (W5YI VEC) WALK-IN
CONTACT: FREDDIE BATTLE NG3G (202)546-9348 (DAY)
(301)773-2898 (EVENING)

APRIL 9, 1994 (SATURDAY)

DAVIDSONVILLE, MD - ANNE ARUNDEL RADIO CLUB (LAUREL VEC)
WALK-IN
CONTACT: NANCY ALLEY NT3Z (410)761-7115
BOB ISRAEL WC3I (301)262-5083

ALEXANDRIA, VA - MT. VERNON ARC (LAUREL VEC) WALK-IN
CONTACT: FRANK MACKEY N4GUS (703)455-1510

CUMBERLAND, MD - MOUNTAIN ARC (MOUNT. ARC VEC) WALK-IN
CONTACT: LEO PATTERSON KQ8E (304)289-3576
GAY REMBOLD W3DFW (301)724-0674

HARRISONBURG, VA - MASSANUTTEN ARA (ARRL VEC) WALK-IN
CONTACT: MARSHALL COOPER N4ZKH (703)856-8012 (6-9PM)

RICHMOND, VA (ARRL VEC)
CONTACT: RICK COOK (804)798-5048
INFO PROVIDED BY ARRL - NOT VERIFIED

Continued on next page

APRIL 10, 1994 (SUNDAY)

VIRGINIA BEACH, VA - CHESAPEAKE DX ASSN (W5YI VEC)
PRE-REGISTRATION DESIRABLE
CONTACT: BILL VEREBELY KC4YX (804)424-4764

APRIL 16, 1994 (SATURDAY)

LAUREL, MD - LAUREL ARC (LAUREL VEC)
PRE-REGISTRATION DESIRABLE
CONTACT: JOHN CREEL WB3GXW (301)572-5124 AFTER 6 PM

APRIL 24, 1994 (SUNDAY)

HAGERSTOWN, MD - ANTIETAM RADIO ASSN ARC (ARRL VEC)
PRE-REGISTRATION REQUESTED
CONTACT: PAGE PYNE WA3EOP (301)714-0688 (DAY)
BOB LONG KD3JK (301)824-5132 (EVENING)

APRIL 26, 1994 (TUESDAY)

ANNAPOLIS, MD - MARYLAND MOBILEERS (LAUREL VEC)
PRE-REGISTRATION REQUESTED
CONTACT: LOIS TURNER (410) 647-4178

APRIL 30, 1994 (SATURDAY)

WILLIAMSBURG, VA - WILLIAMSBURG ARC (ARRL VEC)
WALK-IN
CONTACT: ANDREW SWANSON WJ4X (804)253-2811

MAY 1, 1994 (SUNDAY)

LANDOVER, MD - D.C.M. ARC (ARRL VEC) WALK-IN
CONTACT: FREDDIE BATTLE NG3G (202)546-9348 (DAY)
(301)773-2898 (EVENING)

ELKINS, WVA (MOUNT. ARC VEC) WALK-IN
CONTACT: (304)637-0506

MAY 14, 1994 (SATURDAY)

DAVIDSONVILLE, MD - ANNE ARUNDEL RADIO CLUB (LAUREL VEC)
WALK-IN
CONTACT: NANCY ALLEY NT3Z (410)761-7115
BOB ISRAEL WC3I (301)262-5083

ALEXANDRIA, VA - MT. VERNON ARC (LAUREL VEC) WALK-IN
CONTACT: FRANK MACKEY N4GUS (703)455-1510

Continued on next page

MAY 14, 1994 (SATURDAY)

HERNDON, VA - HERNDON REPEATER GROUP (ARRL VEC) WALK-IN
CONTACT: MIKE WEBER WB8RDN (703)450-2304 BETWEEN 7-9 PM

MAY 21, 1994 (SATURDAY)

LAUREL, MD - LAUREL ARC (LAUREL VEC)
PRE-REGISTRATION DESIRABLE
CONTACT: JOHN CREEL WB3GXW (301)572-5124 AFTER 6 PM

MAY 22, 1994 (SUNDAY)

ANTIETAM RADIO ASSN (GREATER HAGERSTOWN HAMFEST)
(MOUNT ARC VEC) PRE-REGISTRATION REQUESTED
CONTACT: LEO PATTERSON KQ8E (304)289-3576
GAY REMBOLD W3DFW (301)724-0674

MAY 25, 1994 (WEDNESDAY)

GLEN BURNIE, MD - MARYLAND MOBILEERS (LAUREL VEC)
PRE-REGISTRATION REQUESTED
CONTACT: JERRY GAVIN - NU3D (410) 761-1423

MAY 28, 1994 (SATURDAY)

GOULCESTER, VA - GOULCESTER RADIO AMATEUR COLLEGE OF
EXAMINERS (W5YI VEC) PRE-REGISTRATION DESIRABLE
CONTACT: FRAN STERLING KD4UEY (804)693-2117

EXAM FEES:

- CHECK FOR APPROPRIATE EXAM FEE. FEES AND MODES OF PAYMENT FOR INDIVIDUAL VECs AND EXAM TEAMS MAY VARY.
- ARRL VEC EXAMS COST \$5.75
- LAUREL VEC EXAMS ARE FREE
- MOUNTAIN VEC EXAMS ARE FREE
- W5YI VEC EXAMS COST \$5.75

BRING TO EXAM:

- PICTURE IDENTIFICATION
- COMPLETED FCC FORM 610 (MOST VE TEAMS WILL SUPPLY AT EXAM)
- ORIGINAL AND A COPY OF CURRENT FCC AMATEUR RADIO LICENSE
- ORIGINALS AND COPIES OF ALL ACTIVE CERTIFICATES OF SUCCESSFUL COMPLETION OF PRIOR EXAMS
- EXAM FEE (CHECK OR CASH DEPENDING ON VE TEAM)

"GRANDFATHER" CREDIT FOR ELEMENT 3B (GENERAL WRITTEN):

- IF YOU PRESENTLY HOLD A TECHNICIAN CLASS LICENSE WHICH WAS FIRST ISSUED PRIOR TO MARCH 21, 1987, YOU MAY BE GRANDFATHERED FOR ELEMENT 3B (GENERAL CLASS WRITTEN EXAM) BY PRESENTING THE ORIGINAL AND A COPY OF THE LICENSE DATED PRIOR TO MARCH 21, 1987 TO THE VE TEAM. IT IS YOUR RESPONSIBILITY TO PROVE THAT YOU ARE ENTITLED TO GRANDFATHERING. DO NOT LOSE YOUR ORIGINAL LICENSE!

RULES FOR SUBMISSIONS TO THE FAR VOLUNTEER EXAMINER COOPERATIVE:

1. ALL SUBMISSIONS MUST BE IN WRITING
2. DATE AND DAY OF WEEK MUST BE SPECIFIED FOR EACH EXAM DATE
3. POINT OF CONTACT AND PHONE NUMBER MUST BE SPECIFIED
4. SPONSOR AND LOCATION MUST BE SPECIFIED
5. VEC MUST BE SPECIFIED
6. EXAM DATES UP TO 12 MONTHS IN ADVANCE WILL BE ACCEPTED

Anne Arundel Radio Club

- ▲ Meetings: 8 PM 1st and 3rd Thursdays, Davidsonville Family Recreation Center, Queen Anne Bridge & Wayson Roads off MD Rt. 214 near Annapolis.
- ▲ On The Air: 2030 Thursdays when there is no club meeting on 147.705/105, Tuesdays at 2030 local time on 28.410. The Chesapeake Weather & Traffic Net on 147.705/105 at 1100 and 1500 every weekend day and public holiday from April 1 to November 15. MSN (Maryland Slow Net) every evening at 1930 on 3.7170 Mhz.
- ▲ Address: P.O. Box 308, Davidsonville, MD 21035
- ▲ Information: Margaret (Holly) Bevan, 301-923-0229

The new AARC officers and board members for 1994 were welcomed at the Club's annual Installation Dinner held on December 14th at the Bay Ridge Inn. As usual the fine food and marvelous desserts, along with the camaraderie, resulted in an evening to remember. It was especially nice for Holly Bevan/N3BMB who was surprised with a plaque designed to look like the cover of the Ham Arundel News, in recognition of her years of service as editor of the club's newsletter. Doug Sweely/N2IBM, retiring board member, was presented a plaque for his service to AARC as a member of the board.

Tim Dugan/KA3YYP, coordinator for repeater operations, announced at the February 3rd Club meeting that the AARC's 2-meter and 220 Mhz repeaters once again provide open autopatch access for emergency calls. No access code is required. Transmitting 911 on your tone pad will connect with the Anne Arundel County Emergency Communications Center. The center can connect with State, County and Annapolis police. It cannot be used to connect to District of Columbia authorities. Additional direct emergency access is also available:

- ◆ 913 will connect to Maryland Natural Resources Police (Marine and Tnland).
- ◆ 915 will connect to the U.S. Coast Guard (Search

& Rescue).

- ◆ 918 (on the Davidsonville Repeaters ONLY) will connect to the National Weather Service Washington Forecast Office in Sterling, VA, for reporting emergency weather conditions (SKYWARN).

This open autopatch access will facilitate emergency communications by both club members and many other amateur radio operators who pass through our area each day.

The 1994 Novice Class started on Saturday February 5th with an enrollment of 50 would-be hams. Who predicted that amateur radio is dying? There seems to be a large number of persons in this general area who are very much interested in the hobby.

At the AARC Clubhouse on January 8th, with Nancy Alley/NT3Z as coordinator, Bob Israel/WC3I, Oscar Ramsey/NV3G and Ed Sammis/KA3ACM gave 39 exams to 19 persons. Twenty-three tests were passed with 13 upgrades. Harlan Ray III/AA3FE and Randy Crenwelge/WB5LPN graded. Curtis Brauda/KM4PA acted as runner. Holly Bevan/N3BMB and Katherine Stephens/N3PXB registered. The next testing session at the AARC Clubhouse will be on March 12.

Congratulations to Lamar Neville/K3KHY who upgraded to General. Gordy Amey's call changed from N3PXB to KE3LE and Edward Fine's first call is N3RGF.

73, Holly/N3BMB



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JOHN T. NUTTMANN, CPA

WMA/IBM-Loral Amateur Radio Association

- ▲ Meetings: First Tuesday of the month that is a work day, 5:45 PM to 7:00 PM
- ▲ Next Meeting: March 1, 1994, 5:45 PM in Building 182, Room-3C51(The Radio Shack) Phone: (301) 240-6877
- ▲ Informal Net: Sunday evenings, 147.39 MHz at 21:00L
- ▲ Packet: 145.75 MHz, running TCP/IP netcode (WA3YOO) in support of Montgomery County R.A.C.E.S
- ▲ Information: Erinn Tordella/N3HSA (301) 640-4286; else, leave Radio Room VoiceMail at (301) 240-6877

Thanks to outstanding dedication and hard work on the part of our officers and members, the WMA/IBM-Loral Amateur Radio Association (ARA) is able to report progress on several fronts!

The much-discussed and carefully planned "switch over" of our 2- meter packet frequency to 145.75 MHz, has been essentially completed. This successful frequency move could not have been accomplished without major contributions on the part of each of the following: Chuck-W3GQY; Joe-K3LLL; Frank-WA3YHE; and Roel-N3FJJ. Specifically, Chuck took the lead in working closely with Jerry-N3HVC, the Rockville Node TCP/IP Network Administrator. K3LLL, WA3YHE, and N3FJJ, long-time TCP/IP subject matter experts (SMEs), acted as "on-call" consultants, as each is fully conversant with the version of NOS software in place prior to the ARA packet frequency change.

In spite of the wintry weather experienced recently, the ARA decided to hold our semi-annual "Hungry Hams" breakfast on Saturday, January 22 at Shoney's on Route 355 in Gaithersburg (just a stone's throw from the F.A.R. Fest Montgomery County Fair Grounds location). To accommodate "talk-in" and test our simplex frequency ranges, we communicated on 146.52 MHz. In addition to welcoming a visitor from the Montgomery Amateur Radio Club (M.A.R.C.)-Harry/KC3MX, we

had a nice social gathering with current and retired IBM ARA associates. We all fed our faces sumptuously--with the notable exception of Frank/WA3YHE--disciplined as ever on his high-octane "runner's diet" of coffee and orange juice! As we waddled off (again with the predictable exception of WA3YHE who scampered away), we vowed to repeat this valuable communications training exercise in the near future--for more information, please look for an AUTO-CALL edition near you! Also, don't forget to check the online Newsletter, edited by Frank-WA3YHE and distributed by Roel-N3FJJ for late-breaking details.

Speaking of last-minute news, we are delighted to report that the ICOM IC-765 HF rig is at long last fully operational! All the credit for this accomplishment belongs to our own ARA Treasurer and HF/CW Administrator, Bill/KX8I. Stretching back over a period of months, Bill worked with the manufacturer's problem determination group to diagnose, repair, and ship the rig back and forth. As you may recall, for unknown reasons, the rig was sent out initially but came back not fully repaired, leaving KX8I to re-start the process at square one. Again, Bill, congratulations on a job well done!

'73, Erinn-N3HSA, President

P.S. We would also like to express the ARA's collective appreciation to Shirley Hayes, our advocate and Management Advisor, who took time out (at least twice) to approve and sign shipping instructions on behalf of the HF rig repair effort....

Orders and Inquiries
5-9 PM EST
(301) 963-7752

Help Line
8-9 PM EST
(301) 869-6436

PACKET GADGETS

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National Capitol DX Association

- ▲ Meetings: Feb, Apr, Jun, Aug, Oct and Dec at a member's home. Contact the Secretary for details.
- ▲ On-The-Air: Every Sunday at 8:30 PM on the 147.000 repeater. All are welcome!
- ▲ Information: Rick Murphy - WA1SPT (703) 280-2637. Leo Boberschmidt - KA3TGY (301) 946-3738 or KA3TGY on the local DX PacketCluster or KA3TGY @ N3BBF. MD. USA.NA

NCDXA member Larry Vogt, N4VA, will be in Guyana (8R-land) this month with the FAIRS group (Foundation for Amateur International Radio Service, Ltd). He plans to be teaching morse code, demonstrating amateur radio, helping with antennas, and doing whatever else is necessary to encourage the growth of amateur radio in Guyana. Listen out for Larry from 8R.

As you read this column, the "NCDXA Field Check DX Hunt" operating event is over, the last day for this year-long event being Feb. 28th. We will have the full results in next month's column. Several have worked at least 200 of the field checkable DX countries and three had worked over 225 countries. All who participated seemed to enjoy themselves and the NCDXA officers are looking for suggestions for another club operating event.

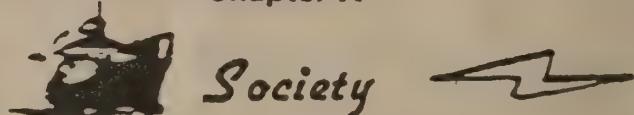
SPECIAL EVENT: If you are interested in low-band DXing, mark Saturday May 7th on your calendars. World-class low-band DXer, John Devoldere, ON4UN, will be at a special program jointly sponsored by NCDXA and the Potomac Valley Radio Club. John will be discussing his new book ("Antennas and Techniques for the Low Bands") and also will be showing a video tape on his recent OT3T multi-single phone contest effort where his group scored 12.34 million points. The exact time and place are still to be determined, so stay tuned.

APRIL MEETING: The April NCDXA meeting will be on Saturday April 23rd. This is the weekend before the Dayton hamfest. We do NOT have

a location as yet and are looking for a volunteer for the venue for this meeting. If you can hold this meeting, please me by phone or on the cluster.

73 & Good DXing. Leo Boberschmidt, KA3TGY, President, NCDXA.

Chapter X



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of Wireless Pioneers

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Gordon West - NARA - Radio Amateur Callbook
W5YI - Diamond - Comet - Larsen - Kantronics
AEA - MFJ - Nye Viking - Bencher - Anli

We have a **LARGE** selection of these items in stock and we ship via UPS & USPS. We also look forward to seeing you at most hamfests in the Autocall subscription area.

TNX es 73 de Kevin, N2KXX - Pres.

Rock Creek Amateur Radio Association

- ▲ Meetings: 3rd Friday of each month at 7:30 PM. VITRO Corp. Bldg #4, 13900 Connecticut Ave., Silver Spring, MD
- ▲ Repeater: W3RCN, 145.25/144.65 in Rockville, MD.
- ▲ Weekly Net: Monday at 8 PM on the repeater
- ▲ Alumni Net: Monday at 10:45 AM on 7.230 Mhz(+/- QRM)
- ▲ Luncheon: Each Wednesday at 11:00 AM at the Anchor Inn in Wheaton, MD
- ▲ Address: P.O. Box 1913, Silver Spring, MD 20915
- ▲ Information: Leo Boberschmidt - KA3TGY (301) 946-3738 or KA3TGY@N3BBF. MD. USA.NA

SILENT KEYS: Two RCARA members became silent keys in January. Long time RCARA member Walt Ramsey, AK3B, passed away on January 6th. Walt was **very** active in the club for many years. Steve Windes, W3HLQ, also passed away in January.

WAS QSL FIELD CHECK NOTICE: Jim McDonough, W3CY, will no longer be field checking QSL cards for the Worked All States award from ARRL. Jim has performed this service for many years and deserves our sincere congratulations for his work. It was certainly reassuring not to have to trust the postal service for taking care of those QSLs you worked so hard to get. However, Jim reported that he had not checked a batch of cards for the past year. Note: this was not something that Jim did for RCARA but for the entire Washington-Baltimore area. Hopefully, someone in this area will start providing the service that Jim provided for the past years.

ANTENNA CHECK: By the time you are reading this column, the weather should have moderated from the severe winter conditions we all experienced in January this year. Now is the time to get out there and check over all your antennas.

Are all the supports still sturdy? What is the condition of any rope holding up your wire antennas? Check your trees. Were any limbs weakened by the winter snow and ice? Do whatever trimming is required. Also, don't forget to check that your coax or ladder line is still in good condition.

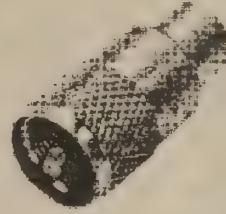
73, Leo-KA3TGY2N3BBF.MD.USA.NA

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TRAINING

The Alexandria Radio Club will hold a Novice/Tech. class starting March 8th. If interested in attending please contact: Rich Adamy - KA4GFY at (703) 644-3920

THINK WARM!

NORTHERN VIRGINIA FM ASSOCIATION

- ▲ Meetings: 3 times per year (Fall, Spring, Winter)
- ▲ Weekly Nets: NVFMA Net every Wednesday, 8:00 pm local, 146.79 - ARES/Public Service Net, Every Sun., 9:00 pm local, 146.91 - On The Air Equip. Clinic, First Wednesday of each month at 7:30 pm local time on the 146.79 repeater.
- ▲ Repeaters: 2 Mtr. - 146.79 & 146.91, 6 Mtr. - 53.37, 70cm-444.75, 22-Mhz. - 224.10 - 224.34, - 1292.1 Mhz.
- ▲ Membership Info: Dan - KC4OCG (703) 281-2358
- ▲ Mailing Address: NVFMA, P.O. Box 486, McLean, VA 22101

The January NVFMA business and election meeting, originally scheduled to be held at the Fairhill Elementary School on Chichester Road in Fairfax, Virginia on Thursday, January 27, 1994, was postponed to February 10, 1994, due to an ice storm.

Bob WB4APR is scheduled to give his outstanding presentation on the interface of the global positioning satellite (GPS) system with packet us-

ing special application software. We thank Bob for coming to the meeting and for sharing his exciting technology with the association.

The "weather alert" message on 146.910-(W4XG - Tysons Corner repeater) was changed from "check for weather alert" to "check for weather alert on 162.55 MHz or press nine one" to alert listeners as to the source of the alert message. One minute of NOAA weather radio may be accessed through 146.910 by pressing DTMF keys "nine one." It may be stopped before the end of one minute by pressing the "*" or star" key. The NWS announces that it has conducted a test of the tone alert system on NOAA weather radio when it conducts its weekly test (only during good weather). The test usually takes place each Wednesday between 11 am and noon. Thus, users of 146.910, may check whether the Wednesday tone alert was real or a test by pressing "nine one" shortly after the NWS alert tone activates the alert message on the repeater.

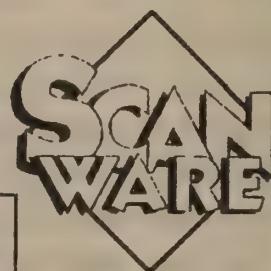
Work continues on the Bull Run remote receiver for 146.790(W4LBL - Fairfax City repeater). It is expected to have the remote in a test mode by the summer of 1994.

Dan KC4OCG

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SOUTHERN PATUXENT AMATEUR RADIO CLUB

- ▲ Meetings: 2nd Wednesday of each month at 7:00 p.m., Southern Community Center, Lusby MD
- ▲ Nets: 28.410 Thursdays 8:30 p.m.
- ▲ 147.195 Tuesdays 8:30 p.m.
- ▲ Repeaters: 29.62 - N3AGB Hollywood
145.17- N3JTO California, Autopatch
146.985- W3ZNW Sunderland
147.195+ N3JTG Leonardtown
443.30+ N3AGB St.Leonard, Autopatch
449.225- KA3ZYG Leonardtown
- ▲ Address: PO Box 399, St.Leonard, MD 20685
- ▲ Information: Steve Franc 301-373-3605 Dwayne Kincaid 410-586-2177

The spring classes are under way. Marty Gary N3HRT and Dwayne Kincaid WD80YG teamed up for "Operation Upgrade". The General, Advanced and Extra upgrade classes meet every Monday night at the Hollywood Volunteer Fire Department through the end of June. Steve Hempling / N31PN and Mark Bailey / KD4D are ready to start the spring Novice through Tech Plus classes at Plum Point Middle School. The classes meet on thursday nights from 7 to 9 pm. See AutoCall's schedule of examinations.

The new 29.62 N3AGB repeater is finally on the air. Randy Norris / N3PNJ installed the 50 watt transmitter during the first part of February and the repeater is working great. The 10 meter repeater is cross linked full time to the 443.30 repeater and neither require subaudiable tones for access. We incorrectly listed the frequency for the new 2 meter repeater for St. Mary's county in the January Auto Call. The repeater will be on the builders channel 145.17 - for several months. The repeater is planned to have north and south remote receives and a St.Mary's county phone patch.

New officers were elected in January. The new president is Steve Franc / AA3AN, the vice president is Glenn Thorn / N3PNL, the secretary and public information officer is Bill Stone /

KA3ZZK, the treasurer is Dwayne Kincaid / WD80YG, the public service coordinator is Nick Gravelle N3JDG and the on the air activities coordinator is Randy Norris / N3PNJ.

SPARC has formed a new Amateur Emergency Service for St. Mary's and Calvert counties. The SPARC AES will provide support to ARES, RACES, REACT and several other existing emergency service organizations in the area. The service was also formed to create more activity in emergency preparedness for the area.

The special event station N31FL will again be on the air this year from the Calvert Cliffs Nuclear Power Plant on March 12 from 1400-2200 UTC. The event titled "Hams for Nuclear Energy Day" commemorates the birthday of Albert Einstein and promote the peaceful use of nuclear energy. Many other nuclear power plant across the country will also be operating during the event. Operation will be in the lower portion of the General band on 10, 15, 20 and 40 meters. QSLs can be received by sending a #10 SASE to N31FL, 12480 Catalina Drive, Lusby MD 20657.

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IMPORTANT NOTICE ALL CLUBS

Please submit your Club Heading with
your article. This will allow us to keep
up-to-date information in your column's.

Fauquier Amateur Radio Association

- ▲ Meeting: Second Tuesday of each Month, 7:30 pm local, Shadow Lawn Rec. Center, Warrenton, VA
- ▲ Net: Every Wednesday night at 9:00 pm local, 147.165 Rptr.
- ▲ Packet: N4YXW-1 full service BBS in Warrenton, VA 145.090 Mhz.
- ▲ ChatNode: NET ROM compatible node: FARA 145.070 Mhz.
- ▲ Repeater: NZ4N/R 147.165 Mhz.
- ▲ Information: Neil - AB4YK (703) 364-3861

The featured speaker at the first meeting of the year was Dr. Bob Cleveland, a Senior Engineer at the FCC. He talked about his work on the Health Effects of Electromagnetic Radiation. Dr. Cleveland's talk covered various aspects of the subject including the effects of both high powered commercial transmitters and amateur rigs of quite modest power, showing how, if you are close to the source of HF power, you can exceed the standards that have been set.

In one case, an apartment dweller in California was just a few feet from a ham's multi-element Yagi beamed directly into her living room. The result was that her TV was routinely interfered with and even her fluorescent lamps were lighted by the power from the rig. Even so, the ham was not violating the power levels laid down by the FCC. The case was obviously a difficult one and no indication of a resolution was presented. The ham was stuck with a covenant restricting his antenna siting so did the best he could to make his contacts within those restrictions. All in all not a very satisfactory situation. In another case an AM transmitter gave above permitted levels of radiated power at the street. Our thanks to Dr. Cleveland for an excellent illustrated talk.

During the business part of the meeting, the Club's Officers were installed. Our new Vice President, Larry, K4LLQ, sought and received ideas for

speakers and events for the 1994 program and we are well on our way to a great 1994. Begin to prepare for the auction which will be the scheduled event for the March meeting. The preparation may be digging out old junk box stuff which could be just what a new ham might need. It may be saving up a few bucks for fantastic bargains. I have seen hand-holds go for well under \$100, power supplies for under \$10, good coax for a few cents a foot. And a lot more stuff for next to nothing. Everyone is exhorted to bring and to buy. A small amount goes to benefit the club. If you wish to donate a few items to the club, that will help keep the club's coffers in a comfortable zone. All the money that we get from donations is tax deductible (see George Murphy for details if needed).

I look forward to seeing you all at the next club meeting on Tuesday, March 8, it will be the annual club auction. The time is 7:30 pm, the location is the Shadow Lawn Recreation Center in Warrenton. Talk in on 147.165 MHz. All comers are invited. For information call 703 364 3861.

Neil, AB4YK.

NOTICE TO ALL CLUBS

Please send your club VEC testing schedule to:

John Forrest, WZ4A
6111 Burnett St.
Alexandria, VA 22310
(703) 971-3905

John is our VEC column editor and keeps the database of the VEC exam schedules updated for publication in Auto-Call. Your VEC schedule's should be sent directly to John at the above listed address.

Vienna Wireless Society

- ▲ Meetings: 2nd and 4th Fridays of each month, 7:30 PM, Vienna Community Center, 120 Cherry Street S.E., Vienna, VA
- ▲ Repeaters: K4HTA/R 146.085 in/146.685 out, 443.375 in/448.375 out
- ▲ Nets: Vienna Emergency Net every Thursday at 7:30 PM, 146.085/146.685. Pow Wow Net every night, except meeting nights, at 9:00PM on 28.444 Mhz. Slow Code every night, except meeting nights, at 8:30PM on 28.390 Mhz.
- ▲ Information: Brian Bayus-NIKCE, (703)264-1180
- ▲ Training Classes: Paul Wilkins-AB4CY (703) 560-2779

At the Membership meeting held on January 14th, VWS Members had the opportunity to meet their new officers for 1994: President, Brian Bayus-NIKCE; Vice President, Larry Wilbur-WB4PFJ; Secretary, Nancy Morris-KD4JD and Treasurer, Barry Bennecoff-KD4BK. Also at this meeting the VWS Repeater Chairman, Bernie Wimmers-KC4YMP gave a fine presentation on the current status of the K4HTA Repeaters and proposed plans for modifications and enhancements in the future.

The Membership meeting held on January 28th featured Bruce Packham-W3UWV as a guest speaker. Bruce's program on "Matching An Antenna Using A Noise Bridge" was most informative and entertaining. Many thanks to Bruce for braving the elements to come down from Baltimore to dispel many of the common myths about antenna matching. Now if only the weather would improve so that we could put many of his fine ideas to use up on the roof!

Participation in the Vienna Emergency Net's Thursday night activation has increased markedly in the past few weeks, with almost enough check-ins to have a VWS Membership meeting on the air. Congratulations to Ann Wimmers-KD4KCT, VEN Chairman, for a fine job at mustering the troops. Also, Danny Yarborough-KE4DXA, has been appointed to service as the VWS Liaison to the North-

ern Virginia Traffic Net (NVTN). Many thanks to Danny for taking on this important job and for bringing our traffic to the Net.

WINTERFEST Chairman, Ross Patterson-N4YYH, advises that all is proceeding smoothly in preparation for the February 27th "gathering" in Vienna. We at VWS look forward to seeing all of you there and that by the time you read this you will have in hand the great bargain you picked up and will have enjoyed the sunny 50 degree weather Ross has forecast. Thanks to Ross for his yeoman efforts and a job well done.

'73, Brian-NIKCE

Carroll County Amateur Radio Club, Inc.

- ▲ Meetings: 2nd Monday at 7:30 pm, Carroll County E.O.C. Washington Road (Rte 32) 1 mile north of route 97, Westminster, MD.
- ▲ Repeaters: 145.41 MHz, 449.875 MHz
- ▲ Mail: CCARC, Inc., P.O. Box 2099, Westminster, MD 21158
- ▲ BBS: K3PZN, 145.03 MHz

The Carroll County Amateur Radio Club wants to welcome all hams in our area. Please stop by for a club meeting anytime you are in the area.

At the end of last year we held our traditional Holiday Party which was very successful, and from which no one went away hungry. Bill Long/NY3M presented awards to club members.

At our last meeting we learned that: we are looking for a new fund raising chair since Kim Stoffel/N3LTM resigned, new elections are coming up and the nominating committee is forming, we need a volunteer to teach a NOVICE/TECH class with code, and Jane Garvin/N3IXL gave a report for the Bylaws committee on the committee's history and she led a discussion that encouraged members to voice their views on items that might change.

73's de Phil, KE3FL

The Herndon Repeater Group

- ▲ Meetings: On-The-Air meeting every Monday at 9:00 p.m.
- ▲ Repeater: N4FSC/R 144.71/145.31 MHz.
- ▲ Mailing: Herndon Repeater Group, P.O. Box 5073, Herndon, VA 22070
- ▲ Training: Michael Weber - WB8RDN (703) 450-2304
- ▲ Information: Michael Rosati - N4FXP (703) 481-8380

After nearly 4 years of running the same old version of WORLI BBS software, Bill N4WJN, is upgrading BBSHRG. It is a fairly large undertaking as he is making changes to the hardware at the same time. Upgrading to this version will require a complete new install, so all users will have to register again- and for a while the direct-to-the-TNC forwarding will be disabled. As users reregister on the new system they will be added back in to the forwarding. BBSHRG users should be patient as all the bugs are worked out of the system. If any problems or questions arise, please contact Bill for assistance.

Following is a report on HRG's Field Day activities submitted by our Field Day Chairman, Nick KD6ADY.

After reviewing all the criteria for our Field Day location, I have decided to use Lake Fairfax this year. Lake Fairfax offers an unmatched list of qualities for all interests, from the social to the hard-core contest. This site was chosen for its outstanding amenities- for the families with children there is the pool, train, paddle boats, and the moon bounce. This will allow members the opportunity to operate during the day while the kids play. The family nature and social aspect of the Herndon Repeater Group is one of our founding tenants and must be preserved. Lake Fairfax' s convenient location cannot be stressed enough, this alone contributes significantly to our participation. (Locating on public property adds 200 points to our total score, 100 for public access and 100 for running an info booth) Having hot showers, mod-

ern rest-rooms and nearby fast food is a benefit to all participants. There is also the intangible benefit of having a "Home" for HRG's Field Days.

This year we intend to use the camper, with two stations dedicated to hard-core operation on one side and two stations + the Novice/Tech station on the other side for more casual operators and for visitors. The satellite station will either be located in a third location or on the 'casual' side, since this station will attract a great deal of attention.

Exam Sessions- Next HRG ARRLNEC exam session will be May 14 in Sterling. Thanks to all the Volunteer Examiners who participate in these sessions. If you are a VEC and would like to help us at future test sessions, please contact Mike WB8RDN.

Welcome to some of our newer members, Pat N4AYV Shirley N4STM, Bill WB8EFH, Cliff KE41DO, Pat KE41DN, James K3TZY, Henry KA3MUF, Allon KE4FYL, Bob KE4DJT, Bob KD4WGS, Melanie KE4JEG, Larry KE4JEJ, and Janice KE4JEU.

Remember- Please keep your transmissions short during severe weather or whenever you hear the Morse code "N" for NET on the repeater instead of the regular beep. This leaves a break for anyone who needs to report an emergency or call for assistance.

Pictured on the next page are Bill WN3T and HRG's best dressed couple Mark KR4FH and his YL Patti, at our recent holiday party. All amateurs are always invited to join HRG at our functions which are announced on our Monday night nets.

73 Mike KD4MTW

M A D R A S

The Maryland Apple Dumpling Radio Amateur Society, Inc.

- ▲ MEETINGS: 2nd and 4th Thursdays - 7:00 P.M.
NBC Building - WKYS Conference Room 4001
Nebraska Avenue, N.W. Washington, DC 20016
- ▲ NET: 1st & 3rd Thursdays at 8:30 P.M. on
145.45 MHz
- ▲ REPEATERS: 444.100/449.100 MHZ
- ▲ 145.45/144.85 MHZ
- ▲ MAILING: P.O. Box 2468, Wheaton, MD 20902
- ▲ INFORMATION: Hani Read - AA3EI (202)
223-3925 Larry Ziecheck - N3GKZ (301) 984-
6112 Jean Blacik - N3PLC (301) 984-6112

ITEMS OF INTEREST

Everyone is delighted that we finally have our BBS up and running. Hani Read, AA3EI and Lou Solomon, N3EXW spent many Saturdays at the Clubhouse getting everything together and working on the equipment. Thanks fellows — we are most appreciative.

Got an interesting article you may want to share with some of your fellow Hams? Our news editor, Hani Read, AA3EI is looking for material to publish in our monthly Newsletter. Give Hani a call and he'll tell you where to send it. We are encouraging members and non-members to participate in submitting articles of interest to the Ham community.

Ninety-four will be an exciting year for MADRAS members. We are talking about holding one or two special events and are in the process of checking several places out. Field Day and our annual picnic are only months away. Then follows some of our public service functions, our fall dinner and our Christmas Get-Together. Where has the year gone?

The monthly Bulletin will be mailed the first week in March announcing our speakers for the 2nd and 4th Thursday meetings.

73's Jean, N3PLC



Bill WN3T enjoys the food at the Holiday Party!



The Best dressed couple Mark, KR4FH and his YL Patti

GODDARD AMATEUR RADIO CLUB

The Goddard Amateur Radio Club is the radio club for the NASA Goddard Space Flight Center in Greenbelt, MD.

- ▲ Meetings: The third Wednesday of every month at 5:00 p.m. at the club station which is located on Soil Conservation Service Road, Gate 10. All amateurs are welcomed. You do not have to be an employee of Goddard to attend or be a member of the club.
- ▲ Repeater: 146.835 with a negative offset.
- ▲ Information: contact Jim Blackwell at 286-4534 or Vikki Gigante at (301) 249-2609.

Well, once again, it is proving to be a busy year for the Goddard Amateur Radio Club. We have several SAREX missions coming up this year and our own Ron Parise, WA4SIR, will be flying on Astro 2 in December. STS-62 will fly on March 3 with USMPII/OASII in a 39 degree inclination orbit; STS-59 April 7, 57 degree inclination with Space Radar Lab 1 and SAREX; and STS-65 on July 8 in a 28 1/2 degree inclination orbit with IML II and SAREX. So, get your packet stations up and running and your 2 meter FM radios talking to the Space Shuttle. SAREX uplink frequencies are currently listed as voice: 144.91, 144.93, 144.95, 144.97 and 144.99 MHZ and Packet: 144.49. The downlink frequencies are voice: 145.55 MHZ and Packet: 145.55 MHZ. DO NOT transmit on the downlink frequencies! The GARC will be retransmitting for all missions on 3.860 MHZ, 7.185 MHZ, 14.295 MHZ, 21.395, 28.650 MHZ and 147.45.

We'll be at the BARC Hambooree with a table and a talk for the ARRL Maryland State Convention the last weekend in March. We'll be looking for you there. Also, we have been invited to speak at Carol Perry's Educational Forum at the Dayton Hamvention and at the ARRL National Convention/HAMCOM in Arlington, Texas in June. So, in addition to local events, we will be travelling this year bringing the message of shuttle retransmission far and wide.

A shuttle retransmission workshop is currently planned for sometime in April. We will be listing the date and time in next month's Auto-Call, so stay tuned or call Vikki Gigante at (301) 249-2609 if you would like to help out with shuttle retransmission.

John Baugus, N3JME, is giving a novice/tech class at the Odenton Fire Station on Route 175 in Odenton, MD on Sundays, beginning at 1:00 P.M. If you would like to take the class, call John at (410) 551-3161.

Congratulations to Roberto Aleman, N3QVD for upgrading to Advanced and to Hugh O'Donnell, W3FUO for upgrading to Extra! Way to go guys!

Until next month - 73's Vikki, KA3PVS

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Mount Vernon Amateur Radio Club

- ▲ Meetings: Second Thursday of each month, 7:30 p.m. (except December) Mt. Vernon Governmental Center 2511 Parker's Lane, Alexandria, VA 22308
- ▲ Repeater: WD4PDP/R 146.055 input 146.655 output
- ▲ Nets: Every Tuesday at 9:00 p.m. Starts on 2-meter then moves to 10-meter on 28.405
- ▲ Information: John KI4HK, (703) 780-2882 or June KD4WSZ, (703) 799-9466
- ▲ Training Classes: John Forrest WZ4A, (703) 971-3905
- ▲ Testing: Second Saturday of each month, 9:00 a.m. Robert E. Lee RECenter in Lee District Park 6601 Telegraph Rd., Alexandria, VA 22310
- ▲ Mailing Address: Mt. Vernon Amateur Radio Club (MVARC) c/o Frank Mackey N4GUS, P.O. BOX 7234, Alexandria, VA 22307

It's March! Can spring be far behind? Buds on the trees, warm breezes wafting by & outdoor amateur radio activities.

The MVARC Volunteer Examiner Program celebrated its two year anniversary. Frank N4GUS offered the following success story: A record total of 1376 testing elements have been given (code and written) to 672 individuals. 366 of those tested obtained new licenses or upgraded their privileges.

Novice	05
Technician	147
Technician Plus	98
General	37
Advanced	52
Extra	27

On October 9, 1993 Keith Ward KO4IO and son Luke Ward KO4IQ passed their Extra class. What's so special? Son Luke is 10 years old! Comments?

To start the new year off right, January's meeting began promptly at 7:30 and then the business discussion went on, and on, and on until 9:00. Finally we broke for social time before the guest

speaker. Tom Abernathy WA3TAI gave an informative program on packet, HF thru UHF. He was kind enough stay to answer questions, even as the hour became late. A special thanks to Tom and all those who remained for the program.

For President's Birthday Weekend, Feb 19-20, 1994, MVARC transmitted from the Mt. Vernon Estate. Perhaps this is becoming an annual event. Thanks to all of the operators who participated. It certainly was spirited fun.

Parades, parades! How MVARC loves a parade. February was the President's Day parade, March will be the St. Patrick Day parade. We look forward to various springtime events. Call Steve WB4EEA 780-7248 for details about the spring calendar.

Lee District Park enjoyed a Chili Softball Game in February after having been postponed "due to inclement weather", such as sub-zero temperature. MVARC was there to communicate, enjoy the game, and of course, to partake of the chili.

Is anyone interested in contests? Then Chris Worsley KD4IBI is the HAM to speak to, 960-9030.

Classes for FCC General & Advanced started January 24, 1994, Monday evenings, 7:30-9:30 pm. Call John Forrest WZ4A (703) 971-3905, for class schedule, location, or if you are interested in Extra and/or Code.

Testing; second Saturday of every month. Code and written, all levels. At Lee District Park in Alexandria. No charge and walk-ins are welcome. Call Frank N4GUS at (703) 455-1510 for information or if you are interested in being a VE or helping at the exams. You don't have to be a VE to help out. Please arrive between 9 & 10 a.m. for testing.

MVARC's Next Meeting: March 10, 1994.

Julie, KD4WSZ

AMRAD

Amateur Radio Research and Development
Corp. (AMRAD)

- ▲ Meetings: Second Thursday of each month, at the Fairfax County Library, McLean, VA (Talk-in AMRAD repeater)
- ▲ Repeater: WD4IWG (147.81 in/147.21 out); Jeff Brennan (WB4WLW), manager; WD4IWG is an open repeater for FM voice and digital communication, especially for experimental modes. Autopatch available to members.
- ▲ Data address: Internet address is rmays@amrad.win.net
- ▲ AMRAD CBBS: (703) 734-1387; AMRAD UNIX BBS (703) 849-1161.
- ▲ Information: Andre Kesteloot N4ICK @ (703) 356-5519 or Terry Fox WB4JFI @ (703) 849-1189.

AMRAD OSCAR-27, launched September 24th with six other OSCARs, continues to function well. Orbiting at an altitude of 800 km, AMRAD OSCAR-27 carries a VHF receiver and one UHF transmitter with an output of about 5 watts. It is currently set up in packet repeater mode; give it a try. Keplerian elements and other details are available from AMSAT or the AMRAD BBS.

Work on narrow-band (SSB) 10-GHz equipment is still planned, but has been on hold for several months because of time restrictions and weather. Anyone interested in microwave activity is invited to contact AMRAD.

The speaker for the February 1994 meeting was Dr. Robert Cleveland of the FCC speaking on the Biological Side-Effects of Radio Waves. The January meeting featured Terry Fox (WB4JFI) describing the new Unix-based AMRAD BBS which has been under development and should be online by the time you read this column.

If you have an interest in technical matters, come to our monthly meeting, visit our table at WINTERFEST (tm), or join us for a Saturday lunch. We lunch at Taco Rio Grande in Vienna on Saturdays at 1230 hrs; our monthly meetings (technical talks) are the 2nd Thursday monthly. All are welcome! Talk-in on the AMRAD

Arlington ARC

- ▲ Meetings: Third Tuesday of each month at 7:30 PM
- ▲ Place: Red Cross building, 4333 Arlington Blvd., Arlington, VA
- ▲ Net: Tuesdays (except third Tuesday), 7:30 PM, 145.47(-)
- ▲ Information: Mike Callahan, NW3V 241-5618 or @WA3TAI
- ▲ Mail: 4333 Arlington Blvd., Arlington, VA 22203

The regular meeting of the Arlington ARC scheduled for January 18 was cancelled that morning because of the extreme cold weather, icy roads, and dangerous driving conditions expected that evening. By now, the February meeting should be history, having featured a screening of the video "Getting Started in Amateur Satellites," produced by CQ magazine, courtesy of Julian - KE4EPG, and early planning for Field Day '94.

Plan to attend the March meeting on March 15 -- the Ides of March! It will feature one of several videos we requested from ARRL HQ, depending on availability. First choice was Last Voice From Kuwait (25 min, color); second choice was This Is ATV (30 min, color), third choice was What Are Those Crazy Sounding Signals? (an introduction to packet radio, 20 min, color). We'll have the catalog of ARRL videos there so that those who attend may choose future selections.

Thanks to Vice President Dennis Bodson - W4PWF for representing us at the January Foundation for Amateur Radio meeting, at which he and George - KE4AKN were confirmed as trustees. Congrats also to George for upgrading; KE4AKN/AG should soon have a new callsign.

Look for new uploads in areas 1 (Arlington ARC), 21 (Ham Radio), and 51 (Recent Uploads) of Beachcomber Joe's (AB4RA's) LLBBS (703) 241-5618. I recently uploaded many files from Hiram, the ARRL HQ BBS, and from the ARRL's Internet "infoserver." These include files on the National Traffic System, ARES, digital signal pro-

cessing (DSP), and many other topics. Some may be interested in COMETFAQ.TXT, 1993EHA.GIF and 1993EHB.GIF (Hubble Space Telescope images), and other files related to comet 1993e (Shoemaker-Levy 9), which is expected to make quite a bang when it hits Jupiter this July, possibly perturbing normal Jovian emissions said to be detectable on the 15-meter band. To learn more about such signals, read "Jupiter on Your Shortwave" by David Rosenthal (N6TST), in the December 1989 issue of Sky and Telescope magazine, or write the Society of Amateur Radio Astronomers (SARA), at P.O. Box 6319, Long Island City, NY 11106.

73 de Mike - NW3V

Columbia Amateur Radio Association

- ▲ Meetings: 4th Tuesday of each month at 7:30 p.m. George Howard Building, Court House Drive, Ellicott City, MD (Howard County Government Complex)
- ▲ Nets: Tuesdays (except 4th), 8:30 p.m. on 147.39 Youth Net, Thursdays, 7:30 p.m. on 147.135 Howard County ARES, 1st and 3rd Tuesdays, 7:30 p.m. on 147.39 Howard County RACES, 2nd Tuesday, 7:30 p.m. on 147.39
- ▲ Repeaters: 147.135 (Ellicott City), 147.390 (Columbia), 223.920 (Ellicott City), 448.275 (Ellicott City), 449.475 (Columbia)
- ▲ Packet BBS: 145.69 (WA3WZA, Ellicott City)
- ▲ Mailing: P.O. Box 911, Columbia, MD 21044
- ▲ Information: Melinda or Joe Massi (410-290-5818) or CARAINFO@WA3WZA

Annual Banquet and Election of Officers

The 1994 annual banquet and election of officers of the Columbia Amateur Radio Association was another "sell-out." Seventy-seven people attended this special event to celebrate the successes of the year past and to kick off the club's new year.

President Ken Williams (N3CCI) opened the meeting with a review of the year's activities, recognizing the many people who helped CARA

achieve so much in 1993. Secretary Melinda Massi (N3KIB) then presented awards to the outgoing officers who were not standing for reelection: President Ken Williams, Vice President Nancy Machia (N3IMD), and Treasurer Dick Frank (W9RZ). These awards acknowledged the many contributions these individuals made to the club, and to the greater amateur radio community.

Once again, the banquet was brilliantly orchestrated by Dionne Frank (KA3ZDL), CARA's social committee chairperson, along with Joy Williams (N3KYI) and Linda Wandel (N3KSM). Many others also helped with the planning and execution of this event and we thank them all.

CARA's new officers for 1994 are:

- President Bob Scarburgh KC3EV 410-465-2421
- Vice President Bill Nesbitt N3OKI 410-997-6062
- Secretary Melinda Massi N3KIB 410-290-5818
- Treasurer Joe Massi KB2JG 410-290-5818
- Member at large Dave Anderson WA3WZX 410-465-8557
- Past President Ken Williams N3CCI 410-992-8209
- Trustee Alan Chedester N3AC 301-596-6543

New Home for Club Breakfasts

Join your fellow hams and CARA club members for a hearty breakfast and plenty of camaraderie. See the faces behind the voices on .135 and .39. Attend the CARA club breakfast, held on the second Saturday of each month at 9:00 am at Jilly's in Ellicott City. Jilly's is located at the Enchanted Forest Shopping Center on Route 40 West. Talk-in is available on 147.135 between 8:30 and 9:00. Due to the popularity of this event, reservations are required. Please call Joy Williams (N3KYI) on the CARA repeaters or by phone (410-992-8209) before 6 p.m. on the Friday before the breakfast.

Continued on next page

The CARA Youth Group is growing by leaps and bounds under the dedicated stewardship of Ed Cobic (N3IHG) and his harmonic Eddie (N3IHX). The group has grown to over 24 members and has taken several interesting field-trips, including a visit to the Goddard ARC's Shuttle Retransmission Operation. Eddie is editing the CARA Youth News, and has produced a first-rate publication. If you are a young amateur radio operator within range of the CARA repeaters, please join the Youth Group for their on-the-air meeting, Thursday evenings at 7:30 p.m. on 147.135.

Howard County Schools Benefit from Efforts of CARA Members

CARA sponsors a "youth education" team which is winding up a series of classes held at the Mt. View Middle School. Seven students are currently preparing to take their exams and join the ranks of amateur radio operators. These sessions began last fall after the team of Dave Anderson (WA3WZX), Tex Barbaritte (W3FUS), and Bob Scarborough (KC3EV) set up an HF station at the school during the school day as part of a special social studies event.

These devoted individuals have been working to introduce amateur radio with students and teachers in the Howard County School System on a regular basis. They give students the opportunity to communicate with people in many foreign countries and help make current events "come alive." This activity also supports the math and science curriculum, as well as the social studies program, in the schools. At a recent demonstration at the Dunloggin Middle School, students were able to talk to people in the former Yugoslavia, and had a long QSO with an electrical engineering student at a university in the Netherlands.

The tireless efforts CARA's youth education team are an excellent example of the outreach efforts needed to keep ham radio vibrant and grow-

ing. It demonstrates the value of citizen participation in our schools.

Maryland Mobileers

Amateur Radio Club

Amateur Radio Club of Maryland Mobileers

- ▲ Meeting: First Friday of each Month at 7:30 p.m., Anne Arundel Cnty Emergency Operations Center, Crownsville, MD
- ▲ On-The-Air: Every Monday night at 8:30 p.m. on 146.805
- ▲ Address: P.O. Box 935, Severn, MD 21144
- ▲ Information: Bruce Colburn (410) 768-5967

Well, I'd sure be willing to bet that everybody has discovered some new ways to keep warm this past month! I had to get my CW speed up to around 45 words per minute just to put a steady signal through my 2K linear so the G5RV over my pool would keep the water on the cover from freezing. (And if you believe that, I have some solid, fire-proof, mud-free land in California you might be interested in..)

I hope everyone made it to the MMARC Swapfest. It certainly was a success for the club, with all tables rented and over 700 people stopping by. I was in charge of the talk-in committee, so we had to be there at 5 A.M. to fire everything up. And I was not surprised to find that several others were already there when I arrived. Everyone involved worked very hard to make our first SwapFest a success. What we really need to know is what the folks who attended thought of it, so we can work on meeting your needs for next year. Please, if you talk to any MMARC members let them know your thoughts, both good and bad, so next year's can be a success also. You can drop me any comments on packet through WB3V's BBS.

The February meeting featured a talk on QRP by Mike. There seems to be a strong interest in this mode, and Mike's talk was informative and interesting. He brought along several tiny rigs and some of the club members had set up a few others, both kits and factory built.

Continued on next page

There was some field day discussion, but much planning remains to be done. Ken/N3OPI is heading up the preparations and is looking for lots of help.

Thanks to a Novice/Tech class and the SwapFest, we voted in a number of new members. Congratulations and welcome to:

Charles Laine/N3RHY
Marcus Wilkinson/N3QQW
Gary Ryan/W3GMY
Harold Bower/WA5JAY
Jennifer Young/N3QDV
William Ziegler/KA6TYY
Robert Babura/KE3HX
John Murphy/N3NYL
Thomas Evans/N3RHX
Bolton Blair/N3QAC

Cooper Chapman/N3JED volunteered (obviously a man with no military background!) to head up a committee to organize a club picnic. Cooper, I hope you realize how seriously the members of this club take the subject of eating! You may notice people following you around salivating and mumbling "When's the Picnic?" in the near future.

Which reminds me, I think I hear a sandwich calling my name, and I hope to see you all at the club breakfast on February 19th at Rick's Cafe in Odenton.

73, Bruce/N3BWF

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Southern Maryland Amateur Radio Club

- ▲ Meetings: 2nd Friday of each month at 1930 at the Church of the Nativity, 5203 Manchester Dr., Temple Hills, Maryland.
- ▲ Nets: Tuesday at 2000 on 147.15+ Repeater; Wednesday at 2000 on 1.865 (\pm QRM); Thursday at 2000 on 28.447 USB.
- ▲ PG ARES: Wednesday at 2100 on 147.15+ Repeater. All are welcome to join.
- ▲ Repeater: W3PT/R 147.15+, Cheltenham, Md. Autopatch to 911.
- ▲ Mailing: P.O. Box 273, Cheltenham, Md, 20623
- ▲ Information: Vic & Linda Curtis, WA3YUV & KA3VNI (301) 888-1388

It's finally March. Dare we hope that spring will be here soon? The weather around SMARC country has been rough this past winter. If it was all snow we could probably have dealt with it but all that ice has brought out a number of scary stories on the repeater. The 911 patch got its share of work too and came in very useful on a number of occasions. During this time even the repeater seemed to have the "sniffles". We noticed this by the varying reception pattern at the extreme edges of our coverage. But, not to worry we have a crew of brave souls who are going to challenge that 200+ foot tower to check the antenna out. (Let's see, what was that emergency number????)

The severe icing weather of January was an inconvenience to some of us, but to others it was outright devastating. The SMARC repeater was used on two separate occasions by the PG County RACES for emergencies in the county. The first came around 10:30 AM on January 19th when Washington Gas shut off the natural gas to a large number of homes at the same time PEPCO was implementing rolling blackouts. The Red Cross opened five shelters throughout the county, requesting RACES assistance for communications. Sixteen members of the SMARC, Goddard, and TRICOUNTY clubs responded to the call, in many cases manning the shelters all night since relief could

Continued on next page

not get to them due to the icing. Our thanks go to the following SMARC members who gave of their time during this incident: Mike - N3HIZ; Mike - N3RGK; Mike - WA3ZII; Gordon - WA3MWN; Darlene - N3ONO; George - KA3KIF; and Ray - WI3A. But the challenges were not to end there. On January 24th around 4:30 there was a natural gas explosion in an apartment complex in Forestville which leveled one apartment building, gutted another, and damaged a third. In response the Red Cross established a shelter at the Suitland High School. Once again RACES was asked to provide communications. SMARC and Goddard members answered the call. Our special thanks for a job well done go to SMARC members Mike - N3HIZ and Mike - N3RGK.

On March 5 and 6 SMARC will be supporting the Tucker Road Figure Skating Club by providing much needed communications during their annual ice skating program at the Naval Academy in Annapolis. We need at least 5 - 6 amateurs with 2M HTs for this event. On Saturday the program lasts from 8 - 5 and on Sunday 8 - 3. Participants will need to dress warmly (science still hasn't figured out a way to make warm ice). This is a great opportunity to assist fellow club members and to see a really great show. Everyone is invited to participate, the more the merrier. If we get more than the minimum participation we will be able to provide coverage in shifts which makes it much easier for all. For further information contact Lee - KF3T, at 301-372-8322. Hope to see you there!

Do you know a person who would like to get their amateur license but doesn't know how to get started? We do! SMARC is starting their spring Novice class on April 4th. We all know how good this program is by the number of new calls heard on the repeater from our last class. Hurry and get the registration information to Vic- WA3YUV or Ray - WI3A, soon.

Time to start thinking about that spring antenna work. Till next month.

73, Greg - WA3FSC

Alexandria Radio Club

- ▲ Meetings: 2nd Friday at 8:00pm, Alexandria American Red Cross, 401 Duke St., Alexandria, VA
- ▲ Repeaters: 147.315(+MHz., 440.600 MHz.
- ▲ Information: Harry @ (703) 790-9613

The new officers for the Alexandria Radio Club (ARC) are as follows:

President: Jeanne Rexroad - N4ZGI
Vice Pres: Rich Adamy - KA3GFY
Sec/Tres: Harry Jones - N4CWP
Technical: Chuck Rexroad - N4HCP

The first activity of the ARC for the 1994 year was to visit the Red Cross's Eastern Emergency Center in Alexandria to look over the Amateur Radio equipment they have installed for emergency use. The purpose of the visit was to assess the status of the equipment and determine if anything needed to be done to put the station on the air. It turned out that they have some excellent equipment but did have a problem with the antenna system. Before any attempt could be made to check out the coax/antenna the earth shook and we were called to provide real support. As you remember, the 17 of Jan. 94 was the day of the LA earthquake.

Since the antenna was not useable, Rick/ N4ASX went home and opened up his HF station and made contact with the officers in LA and got word to the Red Cross for them to contact the Eastern Office on Easy-Link to pass on their needs/information. The ARC opened the club station at the Alex. Red Cross building and operated through the day and night until 6:00am on the 18th of January. The need for ham radio was due to the telephone companies closing off incoming telephone traffic to the LA area.

Supporting this effort was: Jeanne/N4ZGI, Mike/KD4LQS, Rick/N4ASX, Rich/KA4GFY, Jim/W4YUE, Chuck/N4HCP, Steve/WB4EEA, Mindy/WQ9Q, Bob/W4XG, Dan/N4QOS, and Steve/KB2BNX.

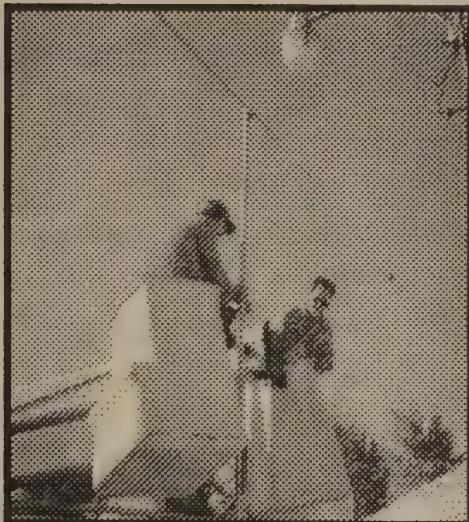
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Shenandoah Valley Amateur Radio Club

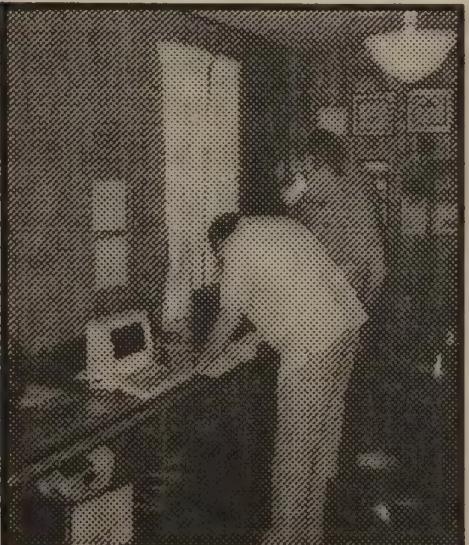
- ▲ **Meetings:** The first and third Friday of each month at 7:30 pm
- ▲ **Place:** The Collins Building 2129 Grace St., Winchester, VA
- ▲ **Repeater:** 146.22/82
- ▲ **Net:** SVEN 146.22/82 Each evening at 7:15 pm
- ▲ **Address:** P. O. Box 139, Winchester, VA 22602
- ▲ **Information:** Bettie Johnson N3PNW - 667-1474

I hope other club correspondents are not having the same difficulty as I am in finding news. We, thanks to the weather, have not had a meeting this year. Therefore I have elected to submit photos from some of last year's events.

73 Walt, WA4HVU



Mike, N4PMQ and Tom, KR4DO getting the new beam ready to install



Royce, W3CSG and Irv, KD4BHV at a packet demonstration at the SVARC clubhouse.

Green Mountain Repeater Association

- ▲ **Meetings:** Board of Directors, Last Monday of each month.
- ▲ **Repeaters:** KD3VR-146.61(Cheverly) K3GXF-146.88(Greenbelt)
- ▲ **Luncheon:** First Saturday of each month at the Fountain Cafe, Laurel Shopping Center Mall, U.S. Rt. 1(Baltimore Ave.) and Cherry Ln. Starts at 11:30 am.
- ▲ **Mailing:** GMRA, P.O. Box 429, Riverdale, MD 20737
- ▲ **Information:** Boyd Nelson-KZ3Z (301) 434-0934

GMRA is hoping for a "Banner" year in 1994 with it's ever-growing membership, which is nearing 150. Since it's inception, 23 years ago, the Association has done a great job in keeping the two user friendly repeaters active for the Amatuer Community. The Board of Directors and Trustees are mainly responsible for it's upkeep, function and proper use. Our hats are off to them. Let's not forget the members which helped to make all of this possible by their support and their input of dues and donations.

K3BEQ, Murray Green was the first President and aptly gave the Association it's name. Murray's dream was to have a radio station, someday, that he could operate from a mountain top. Since mountains aren't that easy to come by, he had to be satisfied with his comfortable home in

Continued on next page

ARC - Continued from page 48

UPCOMING EVENTS: The ARC will be providing communications support for the George Washington's Day Parade in Alexandria on the 21th of Feb. and then for the Alexandria St. Patrick's Day Parade on the 12th of March.

We regret to announce the passing of Cab Baldwin/W4JAZ, a member of the ARC since its establishment in 1956. He was a delight to be around and added enjoyment to the club. Cab will be missed.

Harry/N4CWP

Prince George's Wireless Association

- ▲ Meetings: First working Tuesday of each month, 7:30 pm, American Red Cross Service Building, 6206 Belcrest Rd., Hyattsville, MD 20782.
- ▲ Club Station: K3CEZ
- ▲ Mailing: 4109 Kennedy St., Hyattsville, MD 20781
- ▲ Information: Frank Holton, WA3ZMW, (301) 927-1245

PGWA held it's regular monthly meeting on January 4th and we had a fine showing of members. Frank, WA3ZMW, brought the meeting to order and Dan, W3SWD, read the minutes of the previous meeting. Frank read incoming correspondence and announced up-coming events and Hamfests.

Dan and Kenny, N3HLY, gave an account of the previous month's FAR-Foundation of Amateur Radio meeting. Dan and Ken are delegates for PGWA and ususally get to the meeting held in Takoma Park, MD.

Thanks to Dave, WB3KXL, for his joining and most generous donation to help the Club on it's recent purchase of the MFJ 1278-Multi-Mode TNC. Dave also made up connecting cables for HF and VHF operation of a Packet System. We are hoping Dave will be our main Packet operator for the Club.

PGWA's main function is to provide communications on the Amateur Bands for the Red Cross in case of disaster situations. One of our members, who recently joined us is Kathy, N3QPO, who is also a Red Cross Disaster volunteer. Last week during the ice and snow, when alot of homeowners were without electricity and heat, Kathy worked at one of the Red Cross shelter sites in Laurel. I was also priveledged to be asked to operate the Red Cross radio for Audrey Bell, the Disaster Control Director for the Hyattsville Chapter.

Messages were being sent to the Emergency Relief Vehicle and received from the volunteers who

were delivering food, cots, blankets and comfort kits to the victims housed in the shelters in five locations.

Kathy, N3QPO, also worked at the Suitland, MD shelter site during the explosion and fire in S.E. at the Forestville, MD apartment complex. Dan, W3SWD, operated the Club station, K3CEZ, passing messages on the 147.15 repeater during this disaster. Thanks to all for their help.

73's, Ken Easton, N3HLY

Our Apologies

If your Club Column did not appear in this issue, we apologize. Due to the weather the mail has been extremely late and your article probably didn't arrive in time.

GMRA - Continued from page 49

the highest spot in Cheverly, elevation 225 feet. Murray installed the 146.61 machine in his home 23 years ago. Hence "Green Mountain".

GMRA has in it's plans, hopefully in the near future, to be able to purchase a new Repeater and it's component units. When, and if, this becomes possible one of the other repeaters that we now use will be kept for a back-up if needed.

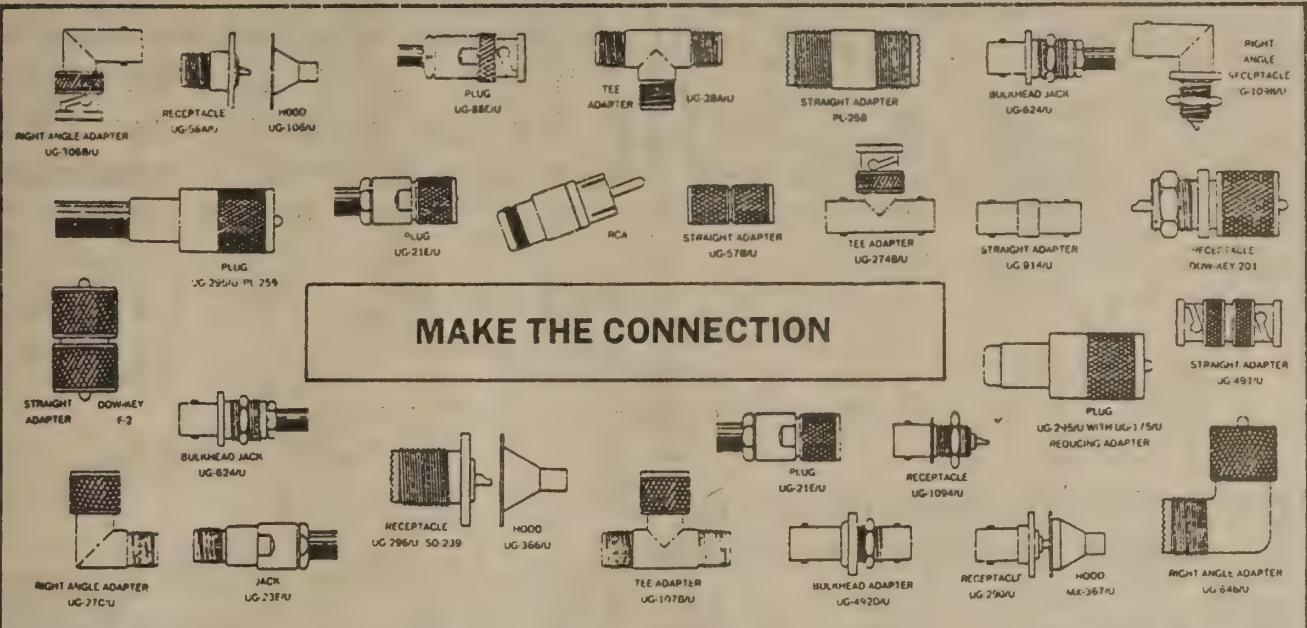
An ever growing membership can go a long way in helping make this dream come true. We can help by recruiting new members and lest we forget, for every three members we bring in we are entitled to a year's membership Free.

The last luncheon meeting was on Saturday, January 8th at the Laurel Shopping Center Mall with quite a large turnout. The February 5th lunch bunch plans to meet at Shoney's, U.S. Rt. 1, just before the Laurel Center. See Ya.

73's, Ken Easton, N3HLY

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WANTED: Icom IC-290A or IC-290H 10 watt, 2 meter multimode transceiver, excellent to mint condition. Will also consider other 2-meter multimode rigs having equivalent capability. Paul Bock, K4MSG, RR1, Box 347, Hamilton, VA 22068 (703) 882-4745

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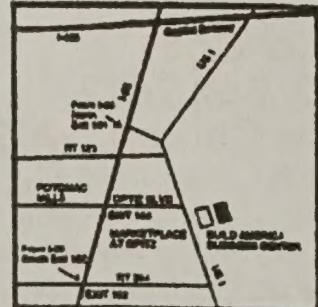
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Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		1 Antietam PG Wireless	2 BARC MARC	3 Anne Arundel VOA	4 MD Mobileers Shenandoah	5 Green Mtn Stafford
6	7 Carroll Cnty PVRC	8 Fauquier Frederick Woodbridge	9 **FAR** Pentagon S. Patuxent	10 AMRAD MADRAS Mt Vernon N. Virginia	11 Alexandria S. Maryland Vienna	12 Stafford
13 MetroComm	14 Ole Va Hams Sterling Park	15 Antietam Arlington BRATS	16 BARC Goddard MARC QCWA 137	17 Anne Arundel QCWA 20	18 Rock Creek Shenandoah	19 Capitol City Stafford
20	21	22 Columbia	23 Laurel	24 MADRAS St. Mary's	25 Central MD Vienna	26 Stafford
27	28	29 Columbia	30 QCWA 20	31		

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